A TYPE OF WELL   Gas Well   Coalbed Methane Well: NO															
2. TITLE OF WORKE    PREMITTION PLAN POWER   PREMITTION						DEPARTMENT	T OF NATI	URAL RESC		3		AMENI			
DRILL REVIVELL     Grat Viell   Collect Methans Viel NO			APPI	LICATION FO	OR PERM	IIT TO DRILL					1. WELL NAME and N		-24I1CS		
## ATTRICO MULTI-  ## Cas Yes!   Coales! Methods Well NO	2. TYPE OF WORK	DRILL N	NEW WELL 📵	REENTER	P&A WELL	. DEEPEN	WELL (	)					BUTTES		
## ADDRESS OF OPERATOR   P.O. SUL 173776. Deliver). CO. 302 17    1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. Deliver). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   1. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   2. MINISTRAL CONTRESSION   P.O. SUL 173776. DELIVER). CO. 302 17   3. MINISTRAL CONTRESSION   P.O. SUL	4. TYPE OF WELL			<u> </u>										ENT NAM	IE
ADDRESS OF OPERATOR	6. NAME OF OPER	ATOR													
11. MINERAL LEASE NUMBER   FEDERAL   MINION OR STATE   FEE   FEDERAL   MINION   MINION	8. ADDRESS OF OF	PERATOR										L			
1.1   1.1			Р.	.O. Box 173779			SHIP						anadarko	com	
15. ADDRESS OF SURFACE OWNER (if box 12 = "text")  17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = "INDIAN")  18. INTEND TO COMMINGLE PRODUCTION FROM WOLTHEL FORMATION'S  19. SUBMITTED TO COMMINGLE PRODUCTION FROM WOLTHEL FORMATION'S  20. LOCATION OF WELL  16. POOTAGES  17. RODAR SECTION  19. SLANT  VERTICAL  10. DIRECTIONAL  1		UTU 0149			FED	DERAL (ID) IND	DIAN 🔵	STATE (	) FEE						EE 💮
15. INTEND TO COMMINGLE PRODUCTION FROM WILLTHE FORMATIONS   19. SLANT   19.	13. NAME OF SUR	FACE OWNER (	(if box 12 = 'f	fee')							14. SURFACE OWNER	R PHONE	(if box 12	= 'fee')	
No continue   Commission   No   Vertical   Directional   No   Directional   No   Vertical   Directional	15. ADDRESS OF S	SURFACE OWN	NER (if box 12	2 = 'fee')							16. SURFACE OWNE	R E-MAIL	(if box 12	= 'fee')	
20. LOCATION OF WELL  FOOTAGES  QTR-QTR SECTION TOWNSHIP RANGE MERIDAN  LOCATION AT SURFACE  1879 FSL 517 FEL NESE 24 9.0.S 21.0.E S  TOP of Uppermost Producing Zone 2229 FSL 497 FEL NESE 24 9.0.S 21.0.E S  21. COUNTY UNTAH  22. DISTANCE TO NEAREST NEALL IN SAME POOL (Applied For Diffling or Congase)  23. BOND NUMBER  24. 9.0.S 21.0.E  25. DISTANCE TO NEAREST NEARE LINE (Feet) 497 26. DISTANCE TO NEAREST NEARE LINE (Feet) 49.0.S 27. ELEVATION - GROUND LEVEL 49.1  28. BOND NUMBER  29. BOND NUMBER WY8000291  29. BOND NUMBER WY8000291  20. SOURCE OF DRILLING WHER IT ASPENDAL NUMBER IT APPLICABLE  19. SOURCE OF DRILLING WHERE IT ASPENDAL NUMBER IT ASPEND			NAME					RODUCTION	FROM		19. SLANT				
Top of Uppermost Producing Zone   2229 FSL 497 FEL   NESE   24   9.0 S   21.0 E   S	(II box 12 = INDIA		n Tribe		YES	(Submit C	Comminglir	ng Application	on) NO	$\circ$	VERTICAL DI	RECTIONA	AL D H	IORIZONT	AL 🔵
Top of Uppermost Producing Zone   2229 FSL 497 FEL   NESE   24   9.0 \$ 21.0 \$   \$ \$	20. LOCATION OF	WELL			FOOTAGE	ES .	QTR	R-QTR	SE	CTION	TOWNSHIP	RA	ANGE	МЕ	RIDIAN
A Total Depth   229 FSL 497 FEL   NESE   24   9.0 \$ 21.0 E   S	LOCATION AT SU	RFACE		187	'9 FSL 51	7 FEL	NE	ESE		24	9.0 S	21	1.0 E		S
22. DISTANCE TO NEAREST LEASE LINE (Feet)   23. NUMBER OF ACRES IN DRILLING UNIT	Top of Uppermos	t Producing Zo	one.	222	9 FSL 49	7 FEL	NE	ESE		24	9.0 S	21	I.0 E		S
String   Hole Size   Length   Weight   Grade & Thread   Max Mud Wt.   Cement   Sacks   Yeld   Weight   Surface   S	At Total Depth			222	9 FSL 49	7 FEL	NE	ESE		24	9.0 S	21	I.0 E		S
Capitled For Drilling or Completed   28. FORM SUBJECT   10849   TVD: 10828   10849	21. COUNTY	UINTA	ΑH		22. DIS	STANCE TO NEA			eet)		23. NUMBER OF ACR			IT	
27. ELEVATION - GROUND LEVEL  4916    A916   Submitted   A916   Submi							or Comple	eted)	POOL				TVD: 108	28	
A916   WY8000291   A3-8496   WY8000291   A918496   WY8000291   WY80002	27. ELEVATION - G	ROUND LEVEL	:L		28. BC	OND NUMBER	333	<del></del>							
String   Hole Size   Casing Size   Length   Weight   Grade & Thread   Max Mud Wt.   Cement   Sacks   Vield   Weight   Surf   11   8.625   0 - 2840   28.0   J-55 LT&C   0.2   Type V   18.0   1.15   15.8   15.8		4916	6				WYB000	0291			WATER RIGHTS APPR			PPLICAB	LE
Surf   11	0.1		0:		147.1.1.4					n	2			V2.11	387.1.1.4
Prod 7.875 4.5 0 - 10849 11.6 HCP-110 LT&C 12.5 Premium Lite High Strength 340 3.38 12.0 50/50 Poz 1530 1.31 14.3  ATTACHMENTS   WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER  WELL PLAT OR STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)  DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)  NAME Laura Abrams  TITLE Regulatory Analyst II  PHONE 720 929-6356  SIGNATURE  DATE 06/01/2012  EMAIL Laura.Abrams@anadarko.com  APPROVAL  APPROVAL  APPROVAL  APPROVAL  Class G 270 1.15 15.8  Lis Premium Lite High Strength 340 3.38 12.0  Complete Drilling Plan  FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER  FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER  APPROVAL  APPROVAL  APPROVAL  APPROVAL				_											
ATTACHMENTS  VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES  WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER  AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)  DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)  NAME Laura Abrams  TITLE Regulatory Analyst II  PHONE 720 929-6356  SIGNATURE  DATE 06/01/2012  EMAIL Laura Abrams @ anadarko.com  APPROVAL  APPROVAL	- Cuit	0.0	.020	0 2010	20.0	0 00 21		0.							
ATTACHMENTS  VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES   WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER  AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)  DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)  NAME Laura Abrams  TITLE Regulatory Analyst II  PHONE 720 929-6356  SIGNATURE  DATE 06/01/2012  EMAIL Laura Abrams@anadarko.com  APPROVAL  APPROVAL	<b>Prod</b> 7.87	75 4	4.5	0 - 10849	11.6	HCP-110	LT&C	12.	.5	Prer	mium Lite High Stre	ngth	340	3.38	12.0
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES     WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER   COMPLETE DRILLING PLAN    AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)   FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER    DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)    TOPOGRAPHICAL MAP    NAME Laura Abrams   TITLE Regulatory Analyst II   PHONE 720 929-6356   SIGNATURE   DATE 06/01/2012   EMAIL Laura.Abrams@anadarko.com    APPROVAL											50/50 Poz		1530	1.31	14.3
WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER  AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)  FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER  FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER  POPULATION TO POPULATION T						A	TTACHN	MENTS							
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)  FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER    DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)  NAME Laura Abrams  TITLE Regulatory Analyst II  PHONE 720 929-6356  SIGNATURE  DATE 06/01/2012  EMAIL Laura.Abrams@anadarko.com  APPROVAL  APPROVAL		VERIFY THE	IE FOLLOWI	ING ARE ATT	ACHED I	IN ACCORDAN	ICE WITH	H THE UTA	H OIL A	AND GAS	CONSERVATION G	ENERA	L RULES		
Image: Directional survey plan (if directionally or horizontally drilled)     Image: Topographical Map       NAME Laura Abrams     Tittle Regulatory Analyst II     PHONE 720 929-6356       SIGNATURE     DATE 06/01/2012     EMAIL Laura.Abrams@anadarko.com       API NUMBER ASSIGNED 43047528250000     APPROVAL     APPROVAL	WELL PLAT	OR MAP PREP	PARED BY LIC	CENSED SURVE	YOR OR E	NGINEER		<b>№</b> сомі	PLETE D	RILLING PI	_AN				
NAME Laura Abrams  TITLE Regulatory Analyst II  PHONE 720 929-6356  SIGNATURE  DATE 06/01/2012  EMAIL Laura.Abrams@anadarko.com  API NUMBER ASSIGNED 43047528250000  APPROVAL	AFFIDAVIT	OF STATUS OF	SURFACE OV	WNER AGREEN	IENT (IF FE	EE SURFACE)		FORM	5. IF OP	ERATOR IS	S OTHER THAN THE L	EASE OW	NER		
SIGNATURE DATE 06/01/2012 EMAIL Laura.Abrams@anadarko.com  API NUMBER ASSIGNED 43047528250000 APPROVAL	DIRECTION	AL SURVEY PL	LAN (IF DIREC	CTIONALLY OR	HORIZON	ITALLY DRILLED	)	<b>г</b> торо	GRAPHI	CAL MAP					
API NUMBER ASSIGNED APPROVAL APPROVAL	NAME Laura Abra	ms			TITLE R	egulatory Analyst	: II			PHONE 7	20 929-6356				
43047528250000	SIGNATURE				DATE 06	6/01/2012				EMAIL La	ura.Abrams@anadark	o.com			
					APPROV	'AL				Permi	DYVIII it Manager				

NBU 921-24I Pad Drilling Program
1 of 4

### Kerr-McGee Oil & Gas Onshore, L.P.

NBU 921-24I1CS

Surface: 1879 FSL / 517 FEL NESE BHL: 2229 FSL / 497 FEL NESE

Section 24 T9S R21E

Unitah County, Utah Mineral Lease: UTU 0149076

#### **ONSHORE ORDER NO. 1**

#### **DRILLING PROGRAM**

#### 8 2.a <u>Estimated Tops of Important Geologic Markers</u>: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,535'	
Birds Nest	1,871'	Water
Mahogany	2,387'	Water
Wasatch	4,855'	Gas
Mesaverde	7,529'	Gas
Sego	9,725'	Gas
Castlegate	9,805'	Gas
Blackhawk	10,228'	Gas
TVD =	10,828'	
TD =	10,849'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

# 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

#### 4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

# 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

NBU 921-24I Pad Drilling Program 2 of 4

#### 6. Evaluation Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

#### 7. <u>Abnormal Conditions</u>:

#### 7.a Blackhawk (Part of Mesaverde Group)

Maximum anticipated bottom hole pressure calculated at 10828' TVD, approximately equals 6,930 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,533 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

#### 7.b Wasach Formation/Mesaverde Group

Maximum anticipated bottom hole pressure calculated at 9725 TVD, approximately equals 5,932 psi (0.61 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,818 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

#### 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

## 9. <u>Variances:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

NBU 921-24I Pad Drilling Program

#### **Background**

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

#### Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

3 of 4

NBU 921-241 Pad Drilling Program
4 of 4

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

#### Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

#### Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

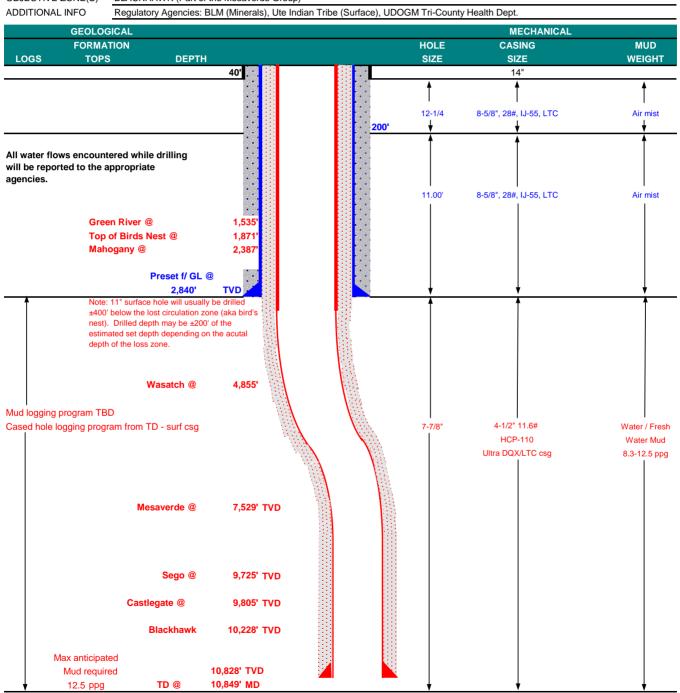
#### 10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



# KERR-McGEE OIL & GAS ONSHORE LP Blackhawk Drilling Program

COMPANY NAME KER	R-McGEE OIL 8	GAS ONSHORE	LP		DATE	March 28,	2012		
WELL NAME NB	J 921-24I1C	S			TD	10,828'	TVD	10,849' MD	
FIELD Natural Buttes COUNTY Uintah STATE Uta						FINIS	HED ELEVATION	4,916'	
SURFACE LOCATION	NESE	1879 FSL	517 FEL	Sec 24	T 9S	R 21E			
	Latitude:	40.019395	Longitude	: -109.49	2532		NAD 83		
BTM HOLE LOCATION	NESE	2229 FSL	497 FEL	Sec 24	T 9S	R 21E			
	Latitude:	40.020356	Longitude	: -109.49	2464		NAD 83		
OBJECTIVE ZONE(S) BLACKHAWK (Part of the Mesaverde Group)									
ADDITIONAL INFO Regulatory Agencies: BLM (Minerals), Ute Indian Tribe (Surface), UDOGM Tri-County Health Dept.									





# KERR-McGEE OIL & GAS ONSHORE LP Blackhawk Drilling Program

CASING PROGRAI	<u>VI</u>		DESIGN FACTORS								
				LTC	DQX						
	SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	(	0-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,840	28.00	IJ-55	LTC	1.89	1.41	5.00	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.23		3.61
	4-1/2"	5,000	to	10,849'	11.60	HCP-110	LTC	1.19	1.23	5.08	

**Surface Casing:** 

(Burst Assumptions: TD =

12.5 ppg)

0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above (Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @

9000 psi)

0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water t	o surface, op	tion 2 will be	e utilized	
Option 2 LEAD	2,340'	65/35 Poz + 6% Gel + 10 pps gilsonite	220	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	4,349'	Premium Lite II +0.25 pps	340	35%	12.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	6,500'	50/50 Poz/G + 10% salt + 2% gel	1,530	35%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

# FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

# ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys	will be	taken a	at 1,000'	minimum	intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

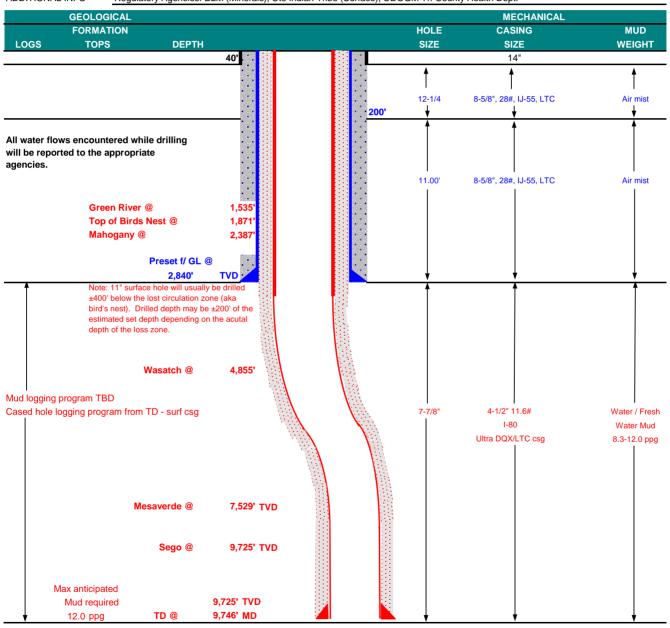
DRILLING ENGINEER:		DATE:	
DRILLING SUPERINTENDENT:	Nick Spence / Danny Showers / Chad Loesel	DATE:	
DRILLING SUPERINTENDENT:	Kenny Gathings / Lovel Young	DATE:	

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



# KERR-McGEE OIL & GAS ONSHORE LP Wasatch/Mesaverde Drilling Program

COMPANY NAME KER	R-McGEE OIL	& GAS ONSHOR	₹E LP	Γ	DATE	March 28,			
WELL NAME NBU	U 921-24I1C	s	S			9,725'	TVD	9,746' MD	
FIELD Natural Butter	s	COUNTY	COUNTY Uintah STATE Utal			FINIS	SHED ELEVATION_	4,916'	
SURFACE LOCATION	NESE	1879 FSL	517 FEL	Sec 24	T 9S	R 21E			
	Latitude:	40.019395	Longitude:	-109.492	532		NAD 83		
BTM HOLE LOCATION	NESE	2229 FSL	497 FEL	Sec 24	T 9S	R 21E			
	Latitude:	40.020356	Longitude:	-109.492	464		NAD 83		
OBJECTIVE ZONE(S)	Wasatch Forn	mation/Mesaverde	e Group						
ADDITIONAL INFO	Regulatory Ac	gencies: BLM (Mir	nerals), Ute Indi	ian Tribe (Su	ırface), l	JDOGM Tri-Co	ounty Health Dept.		
GEOLOG	ICAL						MECH	HANICAL	
FORMAT	TION!					HALE	O A OIN		MILES



DESIGN FACTORS



# KERR-McGEE OIL & GAS ONSHORE LP Wasatch/Mesaverde Drilling Program

CASING PROGRAM

CONDUCTOR

PRODUCTION

**SURFACE** 

									LTC	DQX
SIZE	INT	ERVA	L	WT.	GR.	CPLG.	BURST	BURST COLLAPSE		NSION
14"	(	)-40'								
							3,390	1,880	348,000	N/A
8-5/8"	0	to	2,840	28.00	IJ-55	LTC	1.89	1.41	5.00	N/A
							7,780	6,350		267,035
4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.05		2.89
							7,780	6,350	223,000	
4-1/2"	5,000	to	9,746'	11.60	I-80	LTC	1.11	1.05	4.96	

**Surface Casing:** 

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
	+ 0.25 pps flocele				
1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
	+ 2% CaCl + 0.25 pps flocele				
<del>-</del>	NOTE: If well will circulate water to	surface, opt	ion 2 will be	utilized	-
2,340'	65/35 Poz + 6% Gel + 10 pps gilsonite	220	35%	11.00	3.82
	+ 0.25 pps Flocele + 3% salt BWOW				
500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
	+ 0.25 pps flocele				
as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
4,346'	Premium Lite II +0.25 pps	340	35%	12.00	3.38
	celloflake + 5 pps gilsonite + 10% gel				
	+ 0.5% extender				
5,400'	50/50 Poz/G + 10% salt + 2% gel	1,280	35%	14.30	1.31
	+ 0.1% R-3				
	500' 1,200' 2,340' 500' as required 4,346'	500' Premium cmt + 2% CaCl	500' Premium cmt + 2% CaCl 180	500'       Premium cmt + 2% CaCl       180       60%         + 0.25 pps flocele       20 gals sodium silicate + Premium cmt       270       0%         + 2% CaCl + 0.25 pps flocele       NOTE: If well will circulate water to surface, option 2 will be         2,340'       65/35 Poz + 6% Gel + 10 pps gilsonite       220       35%         + 0.25 pps Flocele + 3% salt BWOW       40.25 pps Flocele       150       35%         + 0.25 pps flocele       40.25 pps fl	500'       Premium cmt + 2% CaCl       180       60%       15.80         + 0.25 pps flocele       20 gals sodium silicate + Premium cmt       270       0%       15.80         + 2% CaCl + 0.25 pps flocele       NOTE: If well will circulate water to surface, option 2 will be utilized         2,340'       65/35 Poz + 6% Gel + 10 pps gilsonite       220       35%       11.00         + 0.25 pps Flocele + 3% salt BWOW       40.25 pps Flocele       150       35%       15.80         + 0.25 pps flocele       40.25 pps flocele       <

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

#### **ADDITIONAL INFORMATION**

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT:

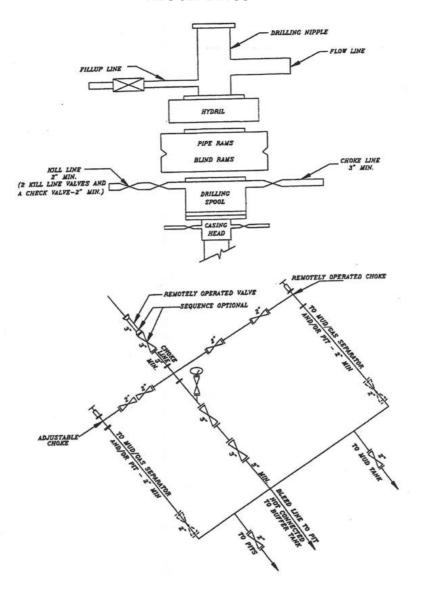
Kenny Gathings / Lovel Young

DATE:

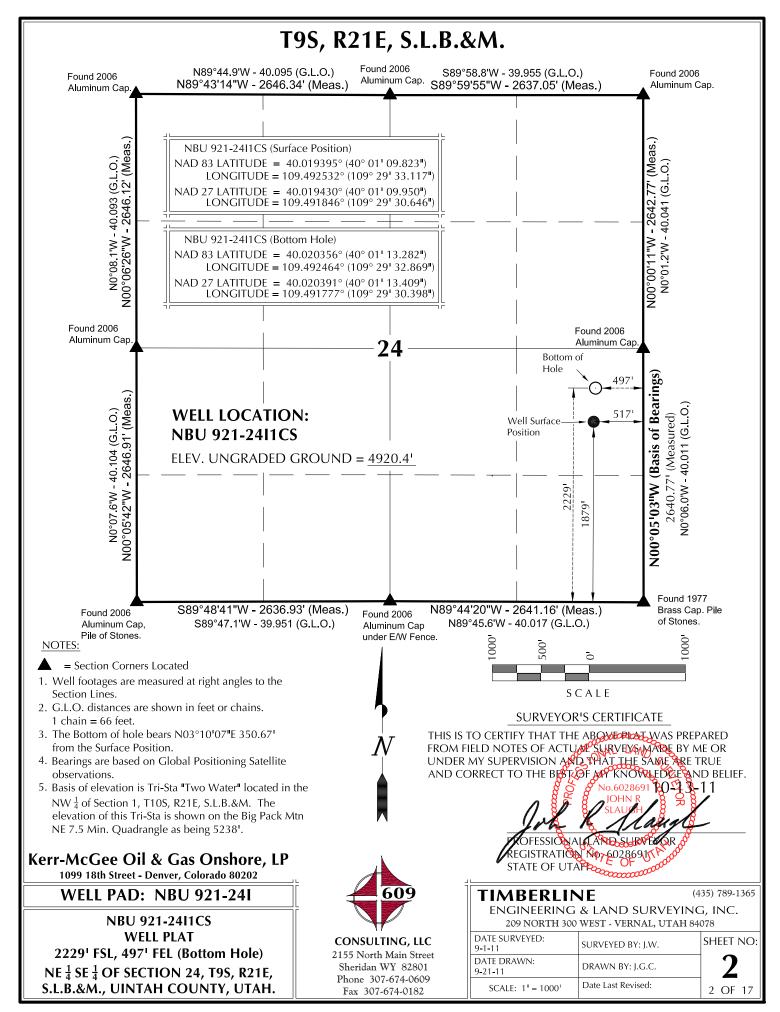
DATE:

 $<sup>{}^{\</sup>star}$ Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

# EXHIBIT A NBU 921-24I1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



			SURFACE POSI	TION		BOTTOM HOLE						
WELL NAME	NAE			NAD27	FOOTAGES	NA		NAC		FOOTAGES		
NBU	<b>LATITUDE</b> 40°01'09.845"	109°29'33.2				<b>LATITUDE</b> 40°01'16.553"	LONGITUDE 109°29'32.877"	<b>LATITUDE</b> 40°01'16.679"	LONGITUDE 109°29'30.405"	FOOTAGES 2560' FSL		
921-24I1BS	40.019401°	109.492567	° 40.019436	109.491881°	527' FEL	40.021265°	109.492466°	40.021300°	109.491779°	497' FEL		
NBU 921-2411CS	40°01'09.823" 40.019395°	109°29'33.1 109.492532	<b>I</b>		1879' FSL 517' FEL	40°01'13.282"   40.020356°	109°29'32.869" 109.492464°	40°01'13.409" 40.020391°	109°29'30.398" 109.491777°	2229' FSL 497' FEL		
NBU	40°01'09.803"	109°29'32.9	991" 40°01'09.9	30" 109°29'30.520	1877' FSL	40°01'10.022"	109°29'32.849"	40°01'10.149"	109°29'30.377"	1899' FSL		
921-24I4BS NBU	40.019390° 40°01'09.782"	109.492498 109°29'32.8			507' FEL 1875' FSL	40.019451° 40°01'03.501"	109.492458° 109°29'32.833"	40.019486° 40°01'03.628"	109.491772° 109°29'30.362"	496' FEL 1239' FSL		
921-24P1BS	40.019384°	109.492463	° 40.019419	109.491776°	497' FEL	40.017639°	109.492454°	40.017674°	109.491767°	496' FEL		
NBU 921-24P1CS	40°01'09.762" 40.019378°	109°29'32.7 109.492428		1.00 -0 001-00	1	40°01'00.231" 40.016731°	109°29'32.813" 109.492448°	40°01'00.357" 40.016766°	109°29'30.342"	908' FSL		
NBU 539-24E		109.492428 109°29'32.6			488' FEL 1871' FSL	+0.010/31	109.492448°	<del>1</del> 0.010/00°	109.491762°	495' FEL		
	40.019372°	109.492393			478' FEL							
WELL NAME	NORTH	EAST	RELATI WELL NAME	VE COORDINATES  NORTH EA		Position to Bot		WELL NAM	E NORTH	EAST		
NBU	679.0 <sup>1</sup>		NBU		NIDII	22		NBU NBU		2.31		
921-24I1BS		28.7'	921-24I1CS	350.1' 19.	921-24	114BS 22		921-24P1BS	-635.7'	2.3		
WELL NAME NBU	NORTH	EAST				/ / <b>I</b>						
921-24P1CS	-964.7'	-6.0'		_ 🛕 🖊	1	/ / <b>/</b>						
K				e) 	.67	' / <b>[</b>						
	_			AZ=2.42278° Fo Bottom Hole)	(e)	/ /						
				- 2 E -	10'07"E - 350. Bottom Hole) Z=3.16861°	/ /						
		_		AZ=2.4 (To Bottor N02°25'22"E	"F. ™ 168	/ /						
				/Z= Boi 5'22	.07 offc 3.1							
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	7			.) [05]	£6 <u>₹</u> H	ole	12500					
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				S	657			539-24F	\			
	SCALE    State   State											
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WEI	L PAD - I	NRO 85	1-241		009		<b>IMBERL</b> Engineerin			35) 789-1365		
WELL	PAD INTE	RFEREN	CE PLAT					IG & LAND 300 WEST - VER		· .		
١	WELLS - NBU	921-2411	BS,	CONS	ULTING, LL		E SURVEYED:			SHEET NO:		
	921-24I1CS,				orth Main Stre	et 9-1-		SURVEYED B	T: J.VV.	□		
	21-24P1BS 8			Sherio	lan WY 8280	$\  \  \  \  \  \  \  \  \  \  \  \  \  \  \  \  \  \  \  $	e drawn: -11	DRAWN BY:	J.G.C.	h h		
	FED IN SECTI &M., UINTAH				307-674-060 307-674-0182		6CALE: 1" = 60'	Date Last Rev	vised:	6 OF 17		
II SIRS										0 () 1/ 1		

Phone 307-674-0609 Fax 307-674-0182

209 NORTH 300 WEST - VERNAL, UTAH 84078

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S.L.B.&M., UINTAH COUNTY, UTAH

APF 12/21/11

7 OF 17

**REVISED:** 

**LOCATED IN SECTION 24, T9S, R21E,** 

S.L.B.&M., UINTAH COUNTY, UTAH

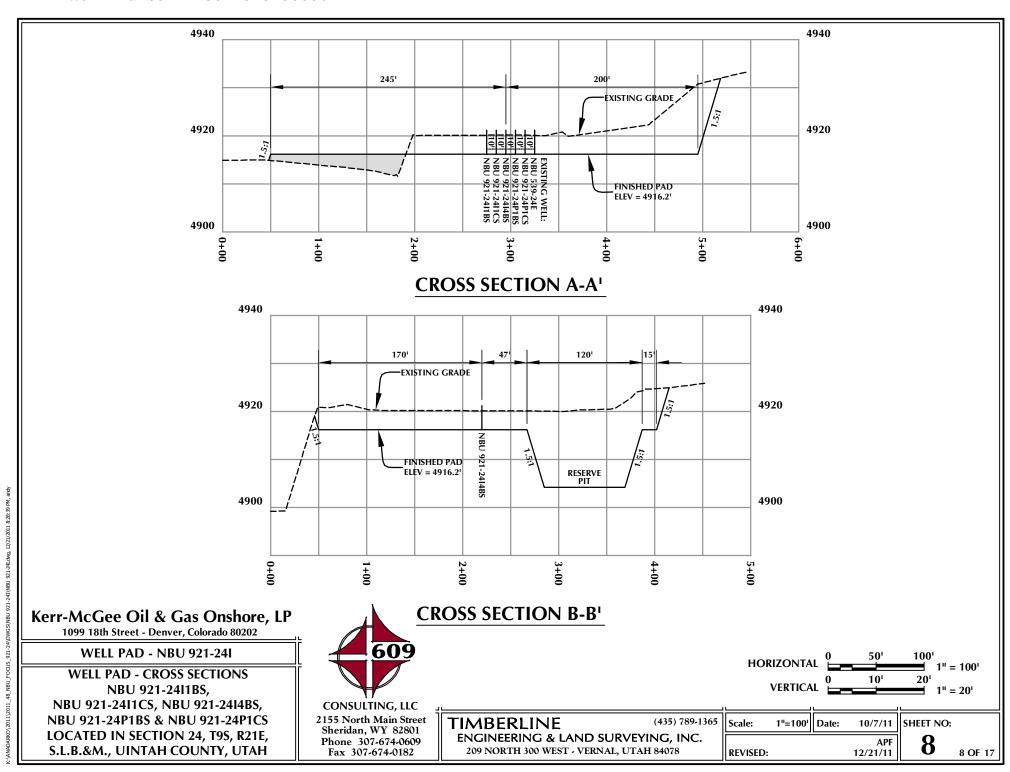
ENGINEERING & LAND SURVEYING, INC.

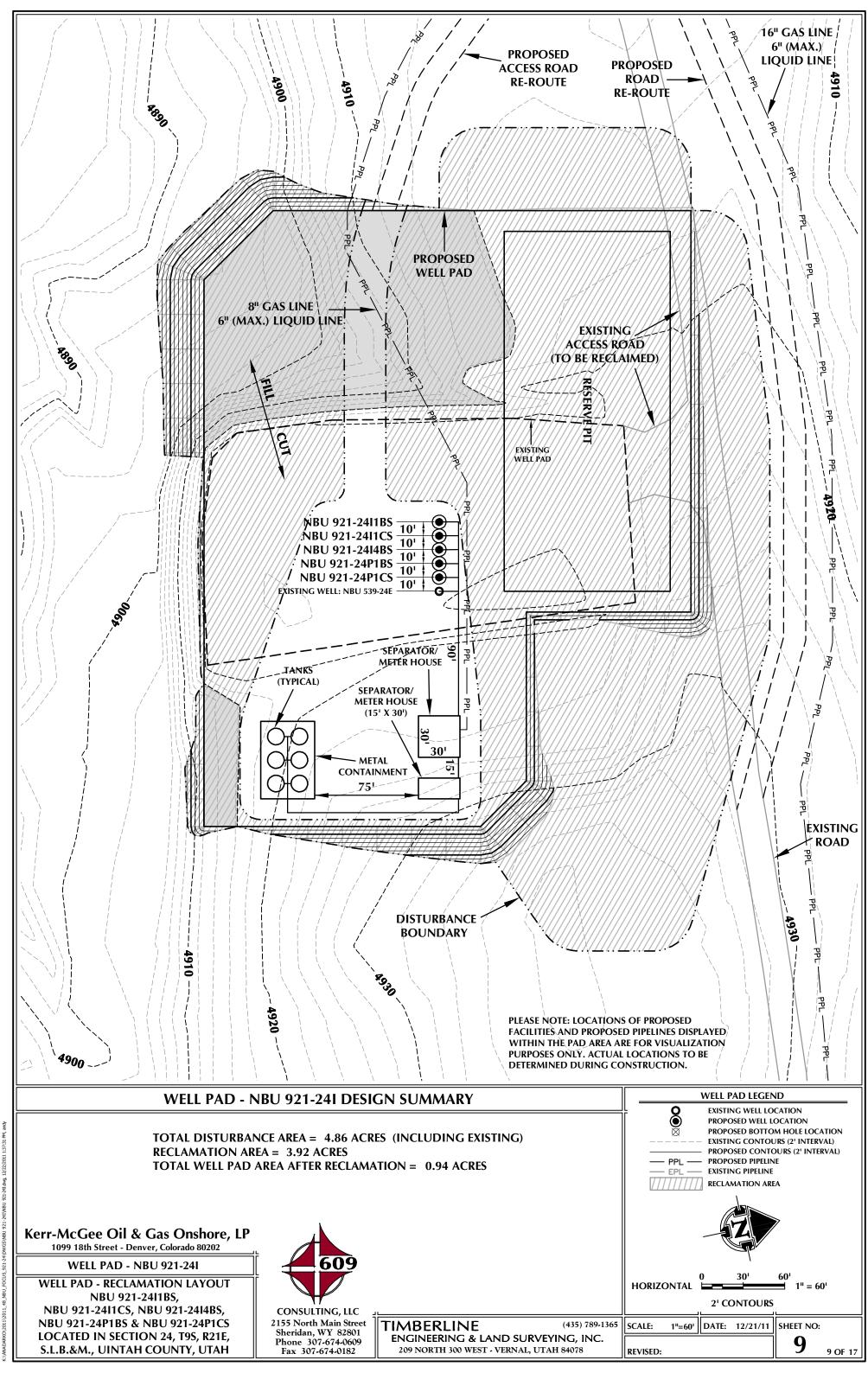
209 NORTH 300 WEST - VERNAL, UTAH 84078

Phone 307-674-0609 Fax 307-674-0182

**REVISED:** 

 $7B_{7B OF 17}$ 





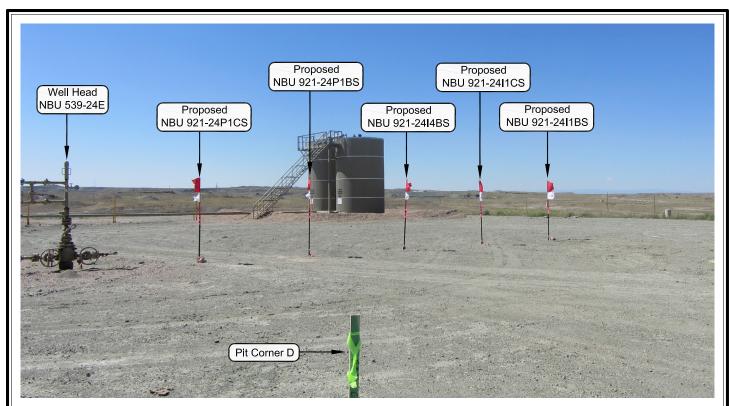


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE



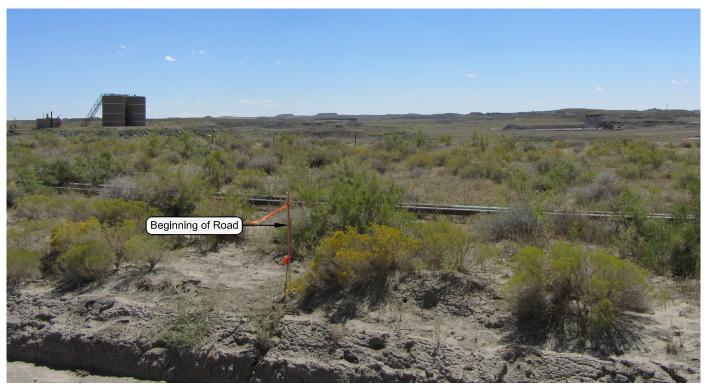


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

**CAMERA ANGLE: SOUTHEASTERLY** 

# Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

# WELL PAD - NBU 921-241

**LOCATION PHOTOS** NBU 921-2411BS, NBU 921-2411CS, NBU 921-2414BS, NBU 921-24P1BS & NBU 921-24P1CS LOCATED IN SECTION 24, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.



### CONSULTING, LLC 2155 North Main Street Sheridan WY 82801

Phone 307-674-0609 Fax 307-674-0182

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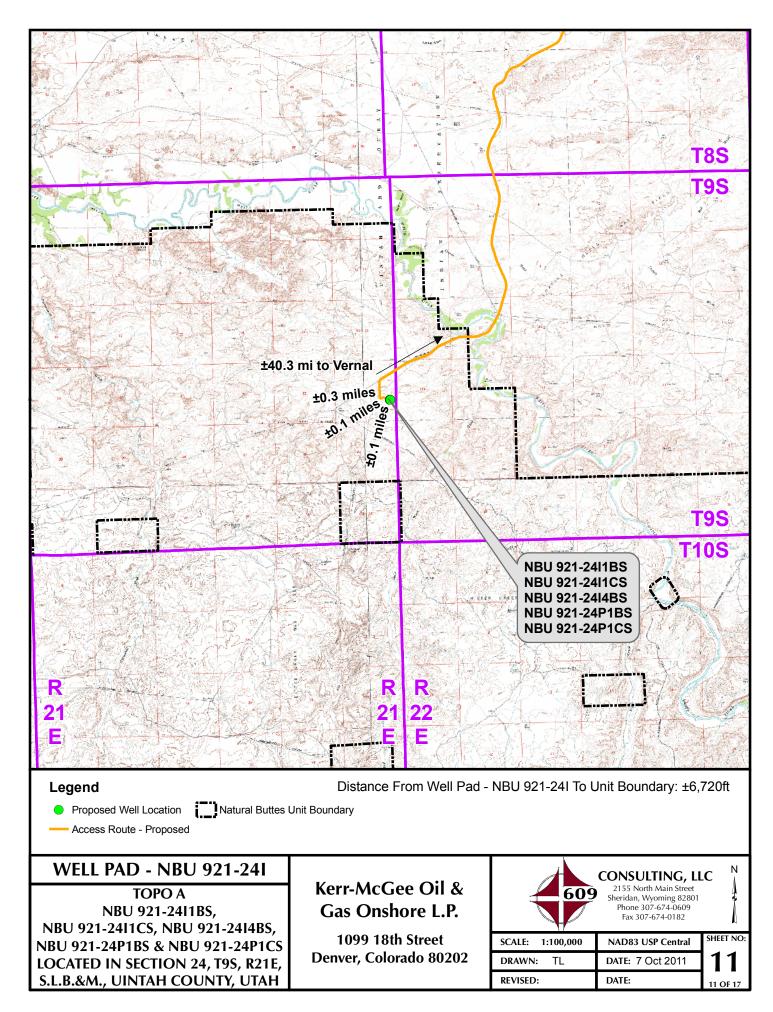
Date Last Revised:

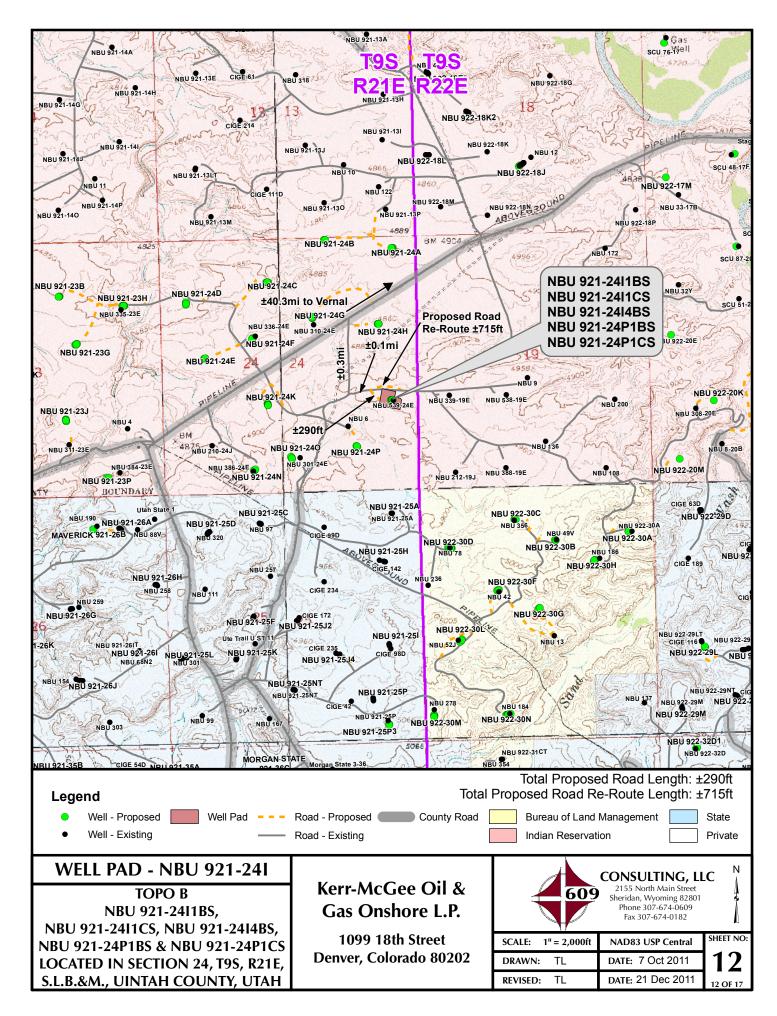
(435) 789-1365

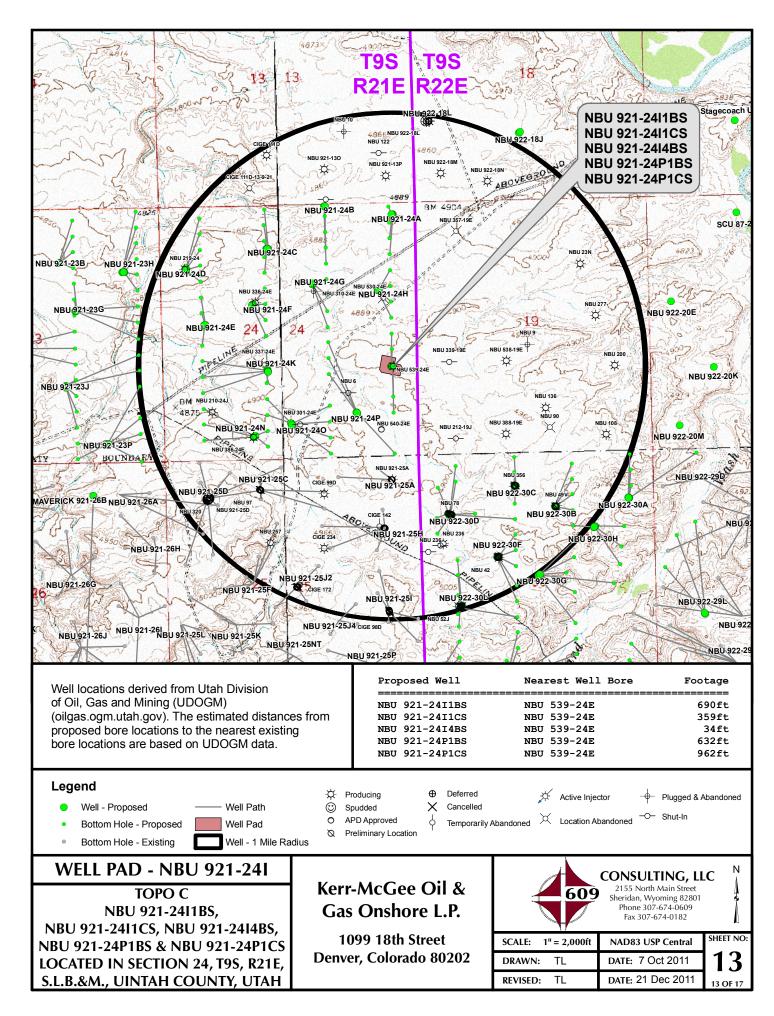
10 OF 17

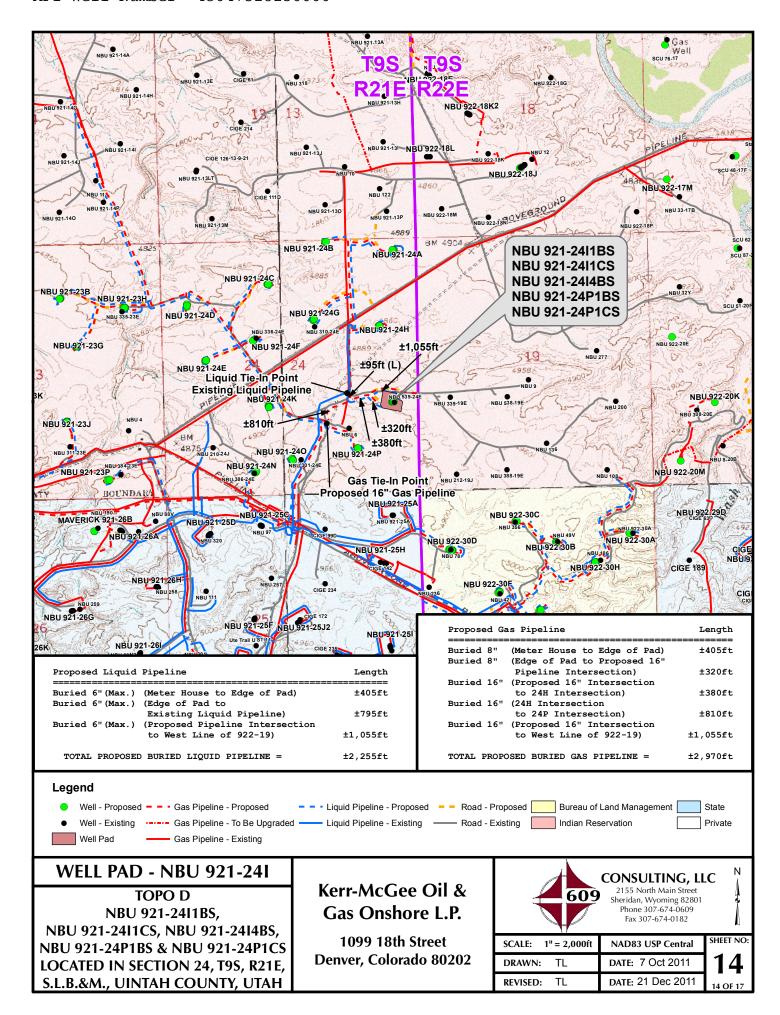
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

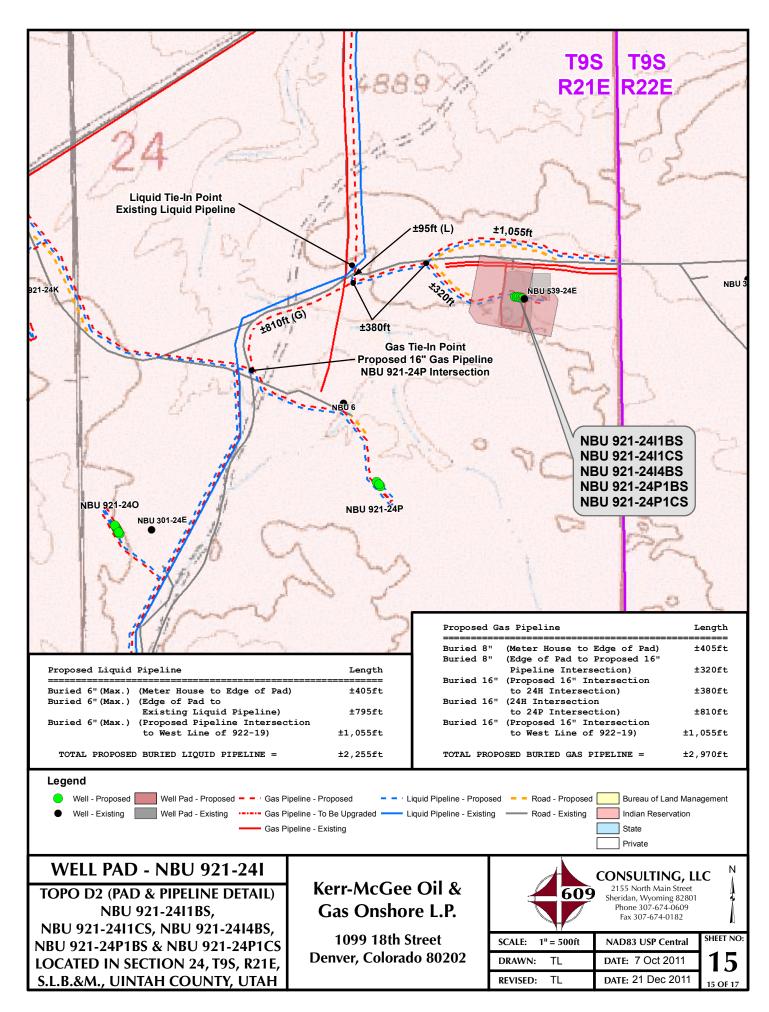
DATE PHOTOS TAKEN: SHEET NO: PHOTOS TAKEN BY: J.W. 9-1-11 DATE DRAWN: DRAWN BY: J.G.C. 9-21-11

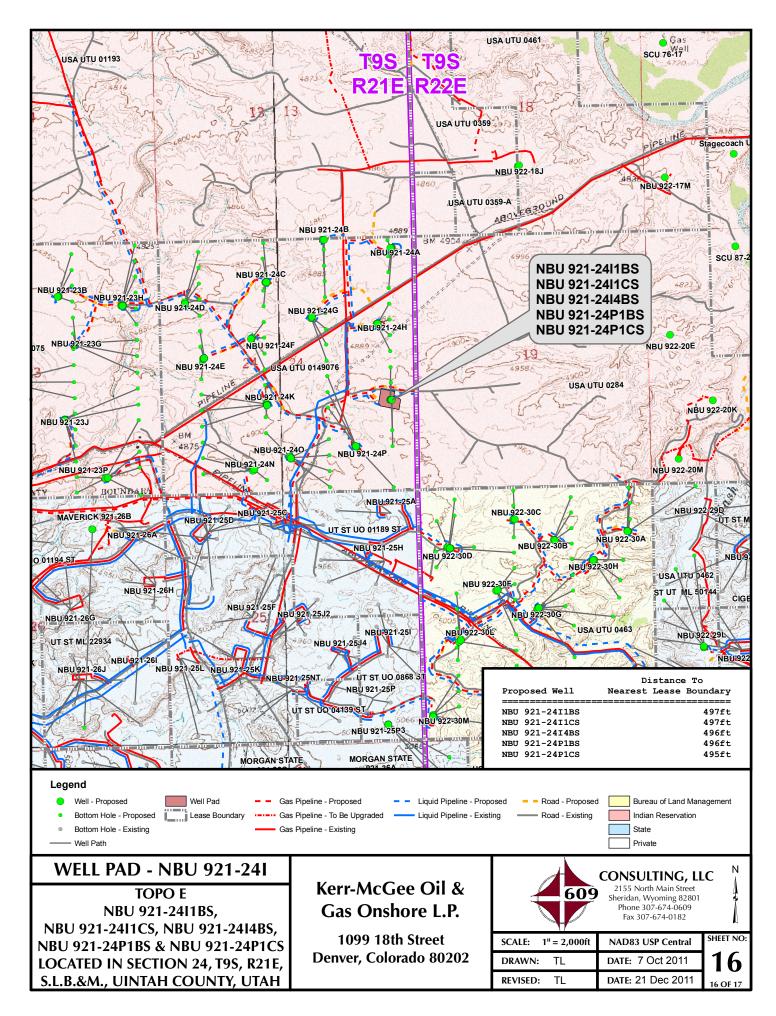












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 921-24I WELLS - NBU 921-24I1BS, NBU 921-24I1CS, NBU 921-24I4BS, NBU 921-24P1BS & NBU 921-24P1CS Section 24, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 16.8 miles to a service road to the south. Exit left and proceed in a southerly direction approximately 0.3 miles to a second service road to the east. Exit left and proceed in an easterly direction approximately 0.1 miles to the proposed access road to the southeast. Follow road flags in a southeasterly direction approximately 290 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 40.8 miles in a southerly direction.

**SHEET 17 OF 17** 

Site: NBU 921-24I PAD

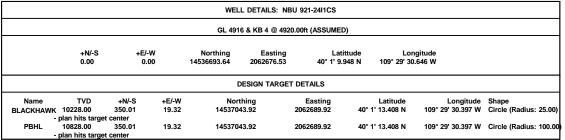
Scientific Drilling Rocky Mountain Operations

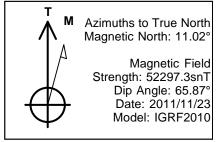
Well: NBU 921-24I1CS

Wellbore: OH

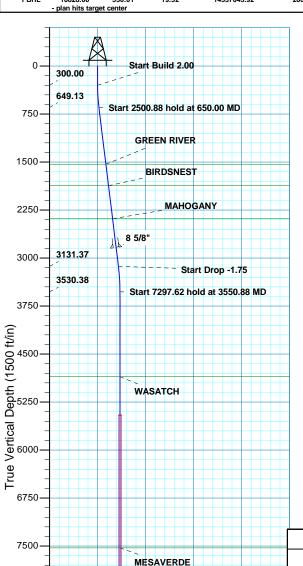
Design: PLAN #1 PRELIMINARY







Created By: RobertScott Date: 10:38. November 23 2011



8250

9000

9750

10500

11250

-750

SEGO

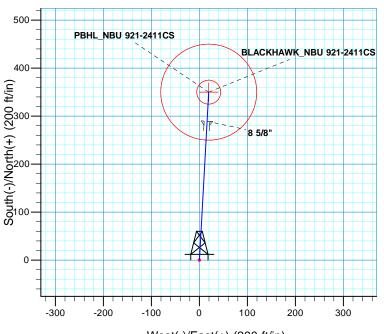
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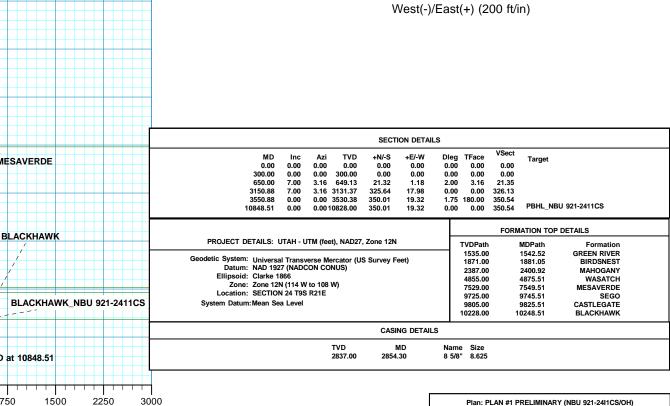
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0

750

Vertical Section at 3.16° (1500 ft/in)





RECE:



# **US ROCKIES REGION PLANNING**

UTAH - UTM (feet), NAD27, Zone 12N NBU 921-24I PAD NBU 921-24I1CS

OH

Plan: PLAN #1 PRELIMINARY

# **Standard Planning Report**

23 November, 2011





# **SDI**Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 921-24I PAD

 Well:
 NBU 921-24I1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 921-24I1CS

GL 4916 & KB 4 @ 4920.00ft (ASSUMED) GL 4916 & KB 4 @ 4920.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

 Geo Datum:
 NAD 1927 (NADCON CONUS)

 Map Zone:
 Zone 12N (114 W to 108 W)

Mean Sea Level

Site NBU 921-24I PAD, SECTION 24 T9S R21E

Northing: 14,536,691.99 usft Site Position: Latitude: 40° 1' 9.930 N From: Lat/Long Easting: 2,062,686.36 usft Longitude: 109° 29' 30.520 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.97 13.200 in

System Datum:

Ostion dicertainty. O.00 it Siot radius. 15.200 iii Sind Convergence. O.8

Well NBU 921-24I1CS, 1879 FSL 517 FEL

 Well Position
 +N/-S
 1.82 ft
 Northing:
 14,536,693.65 usft
 Latitude:
 40° 1′ 9.948 N

 +E/-W
 -9.80 ft
 Easting:
 2,062,676.53 usft
 Longitude:
 109° 29′ 30.646 W

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 4,916.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 2011/11/23 11.02 65.87 52.297

PLAN #1 PRELIMINARY Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 3.16

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
650.00	7.00	3.16	649.13	21.32	1.18	2.00	2.00	0.00	3.16	
3,150.88	7.00	3.16	3,131.37	325.64	17.98	0.00	0.00	0.00	0.00	
3,550.88	0.00	0.00	3,530.38	350.01	19.32	1.75	-1.75	0.00	180.00	
10,848.51	0.00	0.00	10,828.00	350.01	19.32	0.00	0.00	0.00	0.00 PE	3HL_NBU 921-241



# **SDI**Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 921-24I PAD

 Well:
 NBU 921-24I1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well NBU 921-24I1CS

GL 4916 & KB 4 @ 4920.00ft (ASSUMED) GL 4916 & KB 4 @ 4920.00ft (ASSUMED)

True

Minimum Curvature

	PLAN#1 FRE								
d Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2	2.00								
400.00	2.00	3.16	399.98	1.74	0.10	1.75	2.00	2.00	0.00
500.00	4.00	3.16	499.84	6.97	0.38	6.98	2.00	2.00	0.00
600.00	6.00	3.16	599.45	15.67	0.87	15.69	2.00	2.00	0.00
650.00	7.00	3.16	649.13	21.32	1.18	21.35	2.00	2.00	0.00
	8 hold at 650.00		040.10	21.02	1.10	21.00	2.00	2.00	0.00
700.00	7.00	3.16	698.76	27.41	1.51	27.45	0.00	0.00	0.00
800.00	7.00	3.16	798.01	39.57	2.18	39.63	0.00	0.00	0.00
900.00	7.00	3.16	897.27	51.74	2.86	51.82	0.00	0.00	0.00
1,000.00	7.00	3.16	996.52	63.91	3.53	64.01	0.00	0.00	0.00
1,100.00	7.00	3.16	1,095.78	76.08	4.20	76.19	0.00	0.00	0.00
1,200.00	7.00	3.16	1,195.03	88.25	4.87	88.38	0.00	0.00	0.00
1,300.00	7.00	3.16	1,294.28	100.42	5.54	100.57	0.00	0.00	0.00
1,400.00 1,500.00	7.00 7.00	3.16 3.16	1,393.54 1,492.79	112.58 124.75	6.22 6.89	112.76 124.94	0.00 0.00	0.00 0.00	0.00 0.00
1,542.52	7.00	3.16	1,535.00	129.93	7.17	130.12	0.00	0.00	0.00
GREEN RIVI									
1,600.00	7.00	3.16	1,592.05	136.92	7.56	137.13	0.00	0.00	0.00
1,700.00	7.00	3.16	1,691.30	149.09	8.23	149.32	0.00	0.00	0.00
1,800.00	7.00	3.16	1,790.56	161.26	8.90	161.50	0.00	0.00	0.00
1,881.05	7.00	3.16	1,871.00	171.12	9.45	171.38	0.00	0.00	0.00
BIRDSNEST									
1,900.00	7.00	3.16	1,889.81	173.43	9.57	173.69	0.00	0.00	0.00
2,000.00	7.00	3.16	1,989.07	185.59	10.25	185.88	0.00	0.00	0.00
2,100.00	7.00	3.16	2,088.32	197.76	10.92	198.06	0.00	0.00	0.00
2,200.00	7.00	3.16	2,187.58	209.93	11.59	210.25	0.00	0.00	0.00
2,300.00	7.00	3.16	2,286.83	222.10	12.26	222.44	0.00	0.00	0.00
2,400.00	7.00	3.16	2,386.09	234.27	12.93	234.63	0.00	0.00	0.00
2,400.92	7.00	3.16	2,387.00	234.38	12.94	234.74	0.00	0.00	0.00
MAHOGANY	•								
2,500.00	7.00	3.16	2,485.34	246.44	13.60	246.81	0.00	0.00	0.00
2,600.00	7.00	3.16	2,584.60	258.61	14.28	259.00	0.00	0.00	0.00
2,700.00	7.00	3.16	2,683.85	270.77	14.95	271.19	0.00	0.00	0.00
2,800.00	7.00	3.16	2,783.10	282.94	15.62	283.37	0.00	0.00	0.00
2,854.30	7.00	3.16	2,837.00	289.55	15.98	289.99	0.00	0.00	0.00
8 5/8"									
2,900.00	7.00	3.16	2,882.36	295.11	16.29	295.56	0.00	0.00	0.00
3,000.00	7.00	3.16	2,981.61	307.28	16.96	307.75	0.00	0.00	0.00
3,100.00	7.00	3.16	3,080.87	319.45	17.64	319.93	0.00	0.00	0.00
3,150.88	7.00	3.16	3,131.37	325.64	17.98	326.13	0.00	0.00	0.00
Start Drop -									
3,200.00	6.14	3.16	3,180.17	331.25	18.29	331.75	1.75	-1.75	0.00
3,300.00	4.39	3.16	3,279.74	340.41	18.79	340.93	1.75	-1.75	0.00
3,400.00	2.64	3.16	3,379.55	346.54	19.13	347.06	1.75	-1.75	0.00
3,500.00	0.89	3.16	3,479.50	349.61	19.30	350.14	1.75	-1.75	0.00
3,550.88	0.00	0.00	3,530.38	350.01	19.32	350.54	1.75	-1.75	0.00
	2 hold at 3550.88		2,223.00		. 3.02		•	0	3.53
4,875.51	0.00	0.00	4,855.00	350.01	19.32	350.54	0.00	0.00	0.00
WASATCH									
7,549.51	0.00	0.00	7,529.00	350.01	19.32	350.54	0.00	0.00	0.00
MESAVERD									



# **SDI**Planning Report



Database: Company: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Project:
 UTAH - UTM (feet)

 Site:
 NBU 921-24I PAD

 Well:
 NBU 921-24I1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 921-24I1CS

GL 4916 & KB 4 @ 4920.00ft (ASSUMED) GL 4916 & KB 4 @ 4920.00ft (ASSUMED)

True

Minimum Curvature

ned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,745.51	0.00	0.00	9,725.00	350.01	19.32	350.54	0.00	0.00	0.00	
SEGO										
9,825.51	0.00	0.00	9,805.00	350.01	19.32	350.54	0.00	0.00	0.00	
CASTLEGAT	ГЕ									
10,248.51	0.00	0.00	10,228.00	350.01	19.32	350.54	0.00	0.00	0.00	
BLACKHAWK - BLACKHAWK NBU 921-2411CS										
10,848.51	0.00	0.00	10,828.00	350.01	19.32	350.54	0.00	0.00	0.00	
TD at 10848.	51 - PBHL_NBU	921-2411CS								

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_NBU 921 - plan hits target cent - Circle (radius 25.00		0.00	10,228.00	350.01	19.32	14,537,043.93	2,062,689.92	40° 1' 13.408 N	109° 29' 30.397 W
PBHL_NBU 921-2411C: - plan hits target cent - Circle (radius 100.0		0.00	10,828.00	350.01	19.32	14,537,043.93	2,062,689.92	40° 1' 13.408 N	109° 29' 30.397 W

Casing Points	s					
	Measured	Vertical		Casing	Hole	
	Depth	Depth		Diameter	Diameter	
	(ft)	(ft)	Name	(in)	(in)	
	2,854.30	2,837.00 8 5/8"		8.625	11.000	

rmations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,542.52	1,535.00	GREEN RIVER				
	1,881.05	1,871.00	BIRDSNEST				
	2,400.92	2,387.00	MAHOGANY				
	4,875.51	4,855.00	WASATCH				
	7,549.51	7,529.00	MESAVERDE				
	9,745.51	9,725.00	SEGO				
	9,825.51	9,805.00	CASTLEGATE				
	10,248.51	10,228.00	BLACKHAWK				



# **SDI**Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 921-24I PAD

 Well:
 NBU 921-24I1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 921-24I1CS

GL 4916 & KB 4 @ 4920.00ft (ASSUMED) GL 4916 & KB 4 @ 4920.00ft (ASSUMED)

True

Minimum Curvature

Plan Annotations				
Measured	Vertical	Local Coordinates		
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
650.00	649.13	21.32	1.18	Start 2500.88 hold at 650.00 MD
3,150.88	3,131.37	325.64	17.98	Start Drop -1.75
3,550.88	3,530.38	350.01	19.32	Start 7297.62 hold at 3550.88 MD
10,848.51	10,828.00	350.01	19.32	TD at 10848.51

NBU 921-24I1BS/ 921-24I1CS/ 921-2414BS/ 921-24P1BS/ 921-24P1CS Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-241 Pad Surface Use Plan of Operations 1 of 15

# Kerr-McGee Oil & Gas Onshore. L.P.

# NBU 921-241 Pad

<u>API #</u>	NBU 921-24I1BS		
Surface	e: 1881 FSL / 527 FEL	NESE	Lot
BHL	.: 2560 FSL / 497 FEL	NESE	Lot
<u>API #</u>	NBU 921-24I1CS		
Surface	e: 1879 FSL / 517 FEL	NESE	Lot
BHL	: 2229 FSL / 497 FEL	NESE	Lot
<u>API #</u>	NBU 921-24I4BS		
Surface	e: 1877 FSL / 507 FEL	NESE	Lot
BHL	: 1899 FSL / 496 FEL	NESE	Lot
<u>API #</u>	NBU 921-24P1BS		
Surface	e: 1875 FSL / 497 FEL	NESE	Lot
BHL	: 1239 FSL / 496 FEL	SESE	Lot
<u>API #</u>	NBU 921-24P1CS		
Surface	e: 1873 FSL / 488 FEL	- NESE	Lot
BHL	.: 908 FSL / 495 FEL	SESE	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on November 9, 2011. Present were:

- David Gordon, Melissa Wardle BLM;
- Bucky Secakuku BIA;
- · LeAllen Blackhair, Rainey Longhair Ute Indian Tribe;
- · Kelly Jo Jackson Montgomery Archeological Consultants Inc.;
- Scott Carson Smiling Lake Consulting;
- John Slaugh, Mitch Batty Timberline Engineering & Land Surveying, Inc.;
- Laura Abrams, Casey McKee, Raleen White, Doyle Holmes, Sheila Wopsock Kerr-McGee
- · Dan Hamilton Grasslands Consulting, Inc.
- · Justin Strauss SWCA Environmental Consultants

NBU 921-24I1BS/ 921-24I1CS/ 921-2414BS/ 921-24P1BS/ 921-24P1CS Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-241 Pad Surface Use Plan of Operations 2 of 15

#### A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

#### **B.** New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BIA.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

RECEIVED: May 30, 2012

NBU 921-24I1BS/ 921-24I1CS/ 921-2414BS/ 921-24P1BS/ 921-24P1CS Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-241 Pad Surface Use Plan of Operations 3 of 15

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe.

 $\pm 290'$  (0.05 miles) – Section 24 T9S R21E (SE/4) – On-lease UTU0149076 Ute Indian Tribe surface, from the edge of the pad to the existing road. Please refer to Topo B.

 $\pm 715'$  (0.14 miles) – Section 24 T9S R21E (SE/4) – On-lease UTU0149076 Ute Indian Tribe surface, re-route existing road to contour the northern edge of the NBU 921-24I pad. Please refer to Topo B.

# C. Location of Existing Wells:

A) Refer to Topo Map C.

### D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 539-24E, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on March 8, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

NBU 921-24I1BS/ 921-24I1CS/ 921-2414BS/ 921-24P1BS/ 921-24P1CS Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-241 Pad Surface Use Plan of Operations 4 of 15

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accommodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

### **GAS GATHERING**

Please refer to Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is  $\pm 2,970$ ° and the individual segments are broken up as follows:

### The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe.

- $\pm 1,915$ ' (0.36 miles) Section 24 T9S R21E (SE/4) On-lease UTU0149076 Ute Indian Tribe surface, New 8" and 16" buried gas gathering pipeline from the meter to the NBU 921-24P intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,055' (0.20 miles) Section 24 T9S R21E (SE/4) On-lease UTU0149076 Ute Indian Tribe surface, New 16" buried gas gathering pipeline from the proposed 16" gas pipeline contouring the northern edge of the pad to the eastern section line.

  Please refer to Topo D2 Pad and Pipeline Detail.

### **LIQUID GATHERING**

Please refer to Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is  $\pm 2,255$ ' and the individual segments are broken up as follows:

### The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe.

- ±1,200' (0.23 miles) Section 24 T9S R21E (SE/4) On-lease UTU0149076 Ute Indian Tribe surface, New 6" buried liquid gathering pipeline from the meter to the existing liquid pipeline. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,055 (0.20 miles) Section 24 T9S R21E (SE/4) On-lease UTU0149076 Ute Indian Tribe surface, New 6" buried liquid gathering pipeline from the proposed liquid gathering pipeline contouring the northern edge of the pad to the eastern section line.

  Please refer to Topo D2 Pad and Pipeline Detail.

RECEIVED: May 30, 2012

NBU 921-24I1BS/ 921-24I1CS/ 921-2414BS/ 921-24P1BS/ 921-24P1CS Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-241 Pad Surface Use Plan of Operations 5 of 15

### **Pipeline Gathering Construction**

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' disturbance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent disturbance width is for maintenance and repairs. Cross country permanent disturbance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

RECEIVED: May 30, 2012

NBU 921-24I1BS/ 921-24I1CS/ 921-2414BS/ 921-24P1BS/ 921-24P1CS Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-241 Pad Surface Use Plan of Operations 6 of 15

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the Vernal BIA Office before terminating of the use of the pipeline(s).

#### The Anadarko Completions Transportation System (ACTS) information:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is discussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

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All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The temporary ACTS lines will be permitted under a separate cover to the Ute Indian Tribe.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BIA considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BIA.

#### E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

#### F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from Tribal lands without prior approval from the BIA. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BIA.

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#### **G.** Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BIA, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BIA, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc.). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BIA. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BIA.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

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No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

#### **Materials Management**

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

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Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E

NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E

Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

#### H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

#### I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of disturbance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

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Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BIA.

#### J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

#### **Interim Reclamation**

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BIA for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

#### **Final Reclamation**

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BIA will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

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After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BIA/Tribe. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications as proposed below in "Measures Common to Interim and Final Reclamation".

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BIA/Tribe.

#### **Measures Common to Interim and Final Reclamation**

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for

re-vegetation. The seed mixes will be selected from a list provided by or approved by the BIA/Tribe or a specific seed mix will be proposed by Kerr-McGee to the BIA/Tribe and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Indian Ricegrass (Nezpar)	3
Sandberg Bluegrass	0.75
Bottlebrush Squirreltail	1
Great Basin Wildrye	0.5
Crested Wheatgrass	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing Saltbrush	0.75
Forage Kochia	0.25
Total	9.5

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Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

#### **Weed Control**

Noxious weeds will be controlled in akk orihect areas un accordance with all applicable rules and regulations.

#### K. Surface/Mineral Ownership:

Ute Indian Tribe

P.O. Box 70

Bureau of Land Management

988 South 7500 East Annex Building

Fort Duschesne, UT 84026

(435) 722-4307

United States of America

Bureau of Land Management

170 South 500 East

Vernal, UT 84078

(435)781-4400

#### L. Other Information:

#### **Onsite Specifics:**

- Armor corners 1 through 3 to protect from sedimentation and erosion
- Shave corner number 2
- Arch monitor during construction
- Paleo monitor during construction

#### **Cultural and Paleontological Resources**

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BIA.

#### **Resource Reports:**

A Class I literature survey was completed on October 7, 2011 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-302.

A paleontological reconnaissance survey was completed on May 26-27, 2010 by SWCA Environmental Consultants. For additional details please refer to report UT11-14314-160.

Biological field survey was completed on October 10-12, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-615.

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#### **Proposed Action Annual Emissions Tables:**

Table 1: Proposed Action Annual Emissions (tons/year) <sup>1</sup>					
Pollutant	Development	Production	Total		
NOx	3.8	0.12	3.92		
CO	2.2	0.11	2.31		
VOC	0.1	4.9	5		
$SO_2$	0.005	0.0043	0.0093		
$PM_{10}$	1.7	0.11	1.81		
PM <sub>2.5</sub>	0.4	0.025	0.425		
Benzene	2.2E-03	0.044	0.046		
Toluene	1.6E-03	0.103	0.105		
Ethylbenzene	3.4E-04	0.005	0.005		
Xylene	1.1E-03	0.076	0.077		
n-Hexane	1.7E-04	0.145	0.145		
Formaldehyde	1.3E-02	8.64E-05	1.31E-02		

<sup>&</sup>lt;sup>1</sup> Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison				
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory <sup>a</sup> (ton/yr)	to WRAP Phase	
NOx	19.6	16,547	0.12%	
VOC	25	127,495	0.02%	

<sup>&</sup>lt;sup>a</sup> http://www.wrapair.org/forums/ogwg/PhaseIII\_Inventory.html

Uintah Basin Data

NBU 921-24I1BS/ 921-24I1CS/ 921-2414BS/ 921-24P1BS/ 921-24P1CS Kerr-McGee Oil Gas Onshore, L.P.

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#### M. Lessee's or Operators' Representative & Certification:

Laura Abrams
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6356

Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filling of false statements.

Laura Abrams March 21, 2012
Date



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

November 16, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 921-24I1CS

T9S-R21E

Section 24: NESE (Surface and Bottom Hole)

Surface: 1879' FSL, 517' FEL Bottom Hole: 2229' FSL, 497' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-24I1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

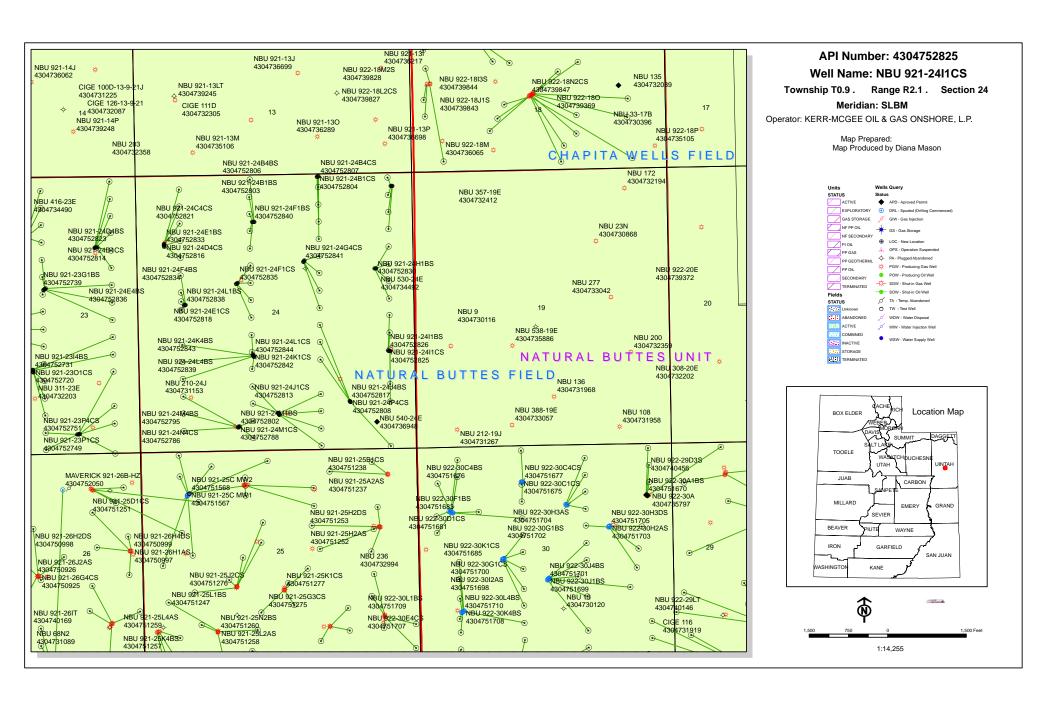
Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney Sr. Staff Landman

Joe Matiney



# United States Department of the Interior

#### BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

June 12, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 921-24N 43-047-52785 NBU 921-24N4BS Sec 24 T09S R21E 0484 FSL 1887 FWL BHL Sec 24 T09S R21E 0578 FSL 2149 FWL 43-047-52786 NBU 921-24N4CS Sec 24 T09S R21E 0478 FSL 1880 FWL BHL Sec 24 T09S R21E 0248 FSL 2149 FWL 43-047-52788 NBU 921-24M1CS Sec 24 T09S R21E 0464 FSL 1865 FWL BHL Sec 24 T09S R21E 0742 FSL 0825 FWL 43-047-52795 NBU 921-24M4BS Sec 24 T09S R21E 0458 FSL 1857 FWL BHL Sec 24 T09S R21E 0412 FSL 0825 FWL 43-047-52802 NBU 921-24M1BS Sec 24 T09S R21E 0471 FSL 1872 FWL BHL Sec 24 T09S R21E 1072 FSL 0826 FWL WELL PAD - NBU 921-240 43-047-52787 NBU 921-24N1CS Sec 24 T09S R21E 0719 FSL 2635 FEL BHL Sec 24 T09S R21E 0908 FSL 2151 FWL 43-047-52790 NBU 921-2401BS Sec 24 T09S R21E 0710 FSL 2630 FEL BHL Sec 24 T09S R21E 1073 FSL 1820 FEL 43-047-52791 NBU 921-2401CS Sec 24 T09S R21E 0702 FSL 2626 FEL BHL Sec 24 T09S R21E 0743 FSL 1819 FEL 43-047-52792 NBU 921-2404CS Sec 24 T09S R21E 0684 FSL 2616 FEL BHL Sec 24 T09S R21E 0083 FSL 1817 FEL 43-047-52793 NBU 921-2404BS Sec 24 T09S R21E 0693 FSL 2621 FEL

BHL Sec 24 T09S R21E 0413 FSL 1818 FEL

RECEIVED: June 12, 2012

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

#### WELL PAD - NBU 921-240

43-047-52796 NBU 921-24N1BS Sec 24 T09S R21E 0728 FSL 2640 FEL

BHL Sec 24 T09S R21E 1238 FSL 2152 FWL

#### WELL PAD - NBU 921-24G

43-047-52789 NBU 921-24G1BS Sec 24 T09S R21E 1642 FNL 2111 FEL BHL Sec 24 T09S R21E 1567 FNL 1830 FEL

43-047-52794 NBU 921-24G4BS Sec 24 T09S R21E 1659 FNL 2122 FEL

BHL Sec 24 T09S R21E 2227 FNL 1827 FEL

43-047-52797 NBU 921-24G1CS Sec 24 T09S R21E 1651 FNL 2117 FEL

BHL Sec 24 T09S R21E 1897 FNL 1829 FEL

43-047-52841 NBU 921-24G4CS Sec 24 T09S R21E 1667 FNL 2128 FEL

BHL Sec 24 T09S R21E 2558 FNL 1826 FEL

#### WELL PAD - NBU 921-24P

43-047-52798 NBU 921-24J1BS Sec 24 T09S R21E 0915 FSL 1258 FEL

BHL Sec 24 T09S R21E 2394 FSL 1825 FEL

43-047-52808 NBU 921-24P4CS Sec 24 T09S R21E 0907 FSL 1252 FEL

BHL Sec 24 T09S R21E 0056 FSL 0494 FEL

43-047-52813 NBU 921-24J1CS Sec 24 T09S R21E 0923 FSL 1264 FEL

BHL Sec 24 T09S R21E 2064 FSL 1824 FEL

43-047-52817 NBU 921-24J4BS Sec 24 T09S R21E 0930 FSL 1271 FEL

BHL Sec 24 T09S R21E 1733 FSL 1823 FEL

#### WELL PAD - NBU 921-24A

43-047-52799 NBU 921-24A4BS Sec 24 T09S R21E 0241 FNL 0425 FEL

BHL Sec 24 T09S R21E 0743 FNL 0499 FEL

BHL Sec 24 T09S R21E 1073 FNL 0498 FEL

BHL Sec 24 T09S R21E 0413 FNL 0499 FEL

#### WELL PAD - NBU 921-24B

43-047-52803 NBU 921-24B1BS Sec 24 T09S R21E 0045 FNL 1833 FEL

BHL Sec 24 T09S R21E 0247 FNL 1834 FEL

43-047-52804 NBU 921-24B1CS Sec 24 T09S R21E 0045 FNL 1843 FEL

BHL Sec 24 T09S R21E 0577 FNL 1833 FEL

43-047-52806 NBU 921-24B4BS Sec 24 T09S R21E 0046 FNL 1853 FEL

BHL Sec 24 T09S R21E 0907 FNL 1832 FEL

BHL Sec 24 T09S R21E 1237 FNL 1831 FEL

#### WELL PAD - NBU 921-24K

43-047-52805 NBU 921-24K4CS Sec 24 T09S R21E 1805 FSL 2191 FWL

BHL Sec 24 T09S R21E 1568 FSL 2154 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

#### WELL PAD - NBU 921-24K

43-047-52837 NBU 921-24L4CS Sec 24 T09S R21E 1815 FSL 2187 FWL

BHL Sec 24 T09S R21E 1402 FSL 0826 FWL

43-047-52839 NBU 921-24L4BS Sec 24 T09S R21E 1824 FSL 2184 FWL

BHL Sec 24 T09S R21E 1732 FSL 0827 FWL

43-047-52842 NBU 921-24K1CS Sec 24 T09S R21E 1843 FSL 2177 FWL

BHL Sec 24 T09S R21E 2228 FSL 2156 FWL

43-047-52843 NBU 921-24K4BS Sec 24 T09S R21E 1852 FSL 2173 FWL

BHL Sec 24 T09S R21E 1898 FSL 2155 FWL

43-047-52844 NBU 921-24L1CS Sec 24 T09S R21E 1833 FSL 2180 FWL

BHL Sec 24 T09S R21E 2061 FSL 0828 FWL

#### WELL PAD - NBU 921-24C

 $43-047-52809 \ \text{NBU} \ 921-24\text{C1BS} \qquad \text{Sec } 24 \ \text{T09S} \ \text{R21E} \ 0897 \ \text{FNL} \ 2254 \ \text{FWL}$ 

BHL Sec 24 T09S R21E 0082 FNL 2190 FWL

43-047-52810 NBU 921-24C4BS Sec 24 T09S R21E 0898 FNL 2234 FWL

BHL Sec 24 T09S R21E 0742 FNL 2166 FWL

43-047-52811 NBU 921-24C1CS Sec 24 T09S R21E 0898 FNL 2244 FWL

BHL Sec 24 T09S R21E 0412 FNL 2167 FWL

43-047-52821 NBU 921-24C4CS Sec 24 T09S R21E 0899 FNL 2214 FWL

BHL Sec 24 T09S R21E 1072 FNL 2165 FWL

43-047-52840 NBU 921-24F1BS Sec 24 T09S R21E 0898 FNL 2224 FWL

BHL Sec 24 T09S R21E 1402 FNL 2163 FWL

#### WELL PAD - NBU 921-24D

43-047-52812 NBU 921-24D1BS Sec 24 T09S R21E 1285 FNL 0525 FWL

BHL Sec 24 T09S R21E 0247 FNL 0832 FWL

43-047-52814 NBU 921-24D1CS Sec 24 T09S R21E 1295 FNL 0525 FWL

BHL Sec 24 T09S R21E 0577 FNL 0831 FWL

43-047-52816 NBU 921-24D4CS Sec 24 T09S R21E 1315 FNL 0526 FWL

BHL Sec 24 T09S R21E 1236 FNL 0830 FWL

43-047-52823 NBU 921-24D4BS Sec 24 T09S R21E 1305 FNL 0526 FWL

BHL Sec 24 T09S R21E 0906 FNL 0831 FWL

BHL Sec 24 T09S R21E 1566 FNL 0830 FWL

#### WELL PAD - NBU 921-24E

43-047-52815 NBU 921-24E4CS Sec 24 T09S R21E 2470 FNL 0879 FWL

BHL Sec 24 T09S R21E 2555 FNL 0828 FWL

43-047-52818 NBU 921-24E1CS Sec 24 T09S R21E 2463 FNL 0909 FWL

BHL Sec 24 T09S R21E 1895 FNL 0829 FWL

43-047-52836 NBU 921-24E4BS Sec 24 T09S R21E 2465 FNL 0899 FWL

BHL Sec 24 T09S R21E 2225 FNL 0829 FWL

Page 3

Page 4

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 921-24E

43-047-52838 NBU 921-24L1BS Sec 24 T09S R21E 2468 FNL 0889 FWL BHL Sec 24 T09S R21E 2391 FSL 0828 FWL

WELL PAD - NBU 921-241

43-047-52819 NBU 921-24P1CS Sec 24 T09S R21E 1873 FSL 0488 FEL

BHL Sec 24 T09S R21E 0908 FSL 0495 FEL

43-047-52822 NBU 921-24P1BS Sec 24 T09S R21E 1875 FSL 0497 FEL

BHL Sec 24 T09S R21E 1239 FSL 0496 FEL

43-047-52824 NBU 921-24I4BS Sec 24 T09S R21E 1877 FSL 0507 FEL

BHL Sec 24 T09S R21E 1899 FSL 0496 FEL

43-047-52825 NBU 921-24I1CS Sec 24 T09S R21E 1879 FSL 0517 FEL

BHL Sec 24 T09S R21E 2229 FSL 0497 FEL

43-047-52826 NBU 921-24I1BS Sec 24 T09S R21E 1881 FSL 0527 FEL

BHL Sec 24 T09S R21E 2560 FSL 0497 FEL

WELL PAD - NBU 921-24H

43-047-52827 NBU 921-24H4CS Sec 24 T09S R21E 1820 FNL 0771 FEL

BHL Sec 24 T09S R21E 2394 FNL 0497 FEL

43-047-52828 NBU 921-24H4BS Sec 24 T09S R21E 1819 FNL 0761 FEL

BHL Sec 24 T09S R21E 2064 FNL 0497 FEL

43-047-52829 NBU 921-24H1CS Sec 24 T09S R21E 1818 FNL 0741 FEL

BHL Sec 24 T09S R21E 1734 FNL 0498 FEL

43-047-52830 NBU 921-24H1BS Sec 24 T09S R21E 1818 FNL 0751 FEL

BHL Sec 24 T09S R21E 1403 FNL 0498 FEL

WELL PAD - NBU 921-24F

43-047-52831 NBU 921-24K1BS Sec 24 T09S R21E 2075 FNL 1885 FWL

BHL Sec 24 T09S R21E 2557 FSL 2158 FWL

43-047-52832 NBU 921-24F4CS Sec 24 T09S R21E 2069 FNL 1893 FWL

BHL Sec 24 T09S R21E 2391 FNL 2159 FWL

43-047-52834 NBU 921-24F4BS Sec 24 T09S R21E 2064 FNL 1901 FWL

BHL Sec 24 T09S R21E 2061 FNL 2160 FWL

43-047-52835 NBU 921-24F1CS Sec 24 T09S R21E 2058 FNL 1909 FWL

BHL Sec 24 T09S R21E 1731 FNL 2162 FWL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard

NN: en-Michael L. Coulthard, o-Bureau of Land Management,
uu-Branch of Minerals, email-Michael\_Coulthard@blm.gov, c=US

Date: 2012.06.12 12:41:56-0600

bcc: File - Natural Buttes Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:6-12-12

RECEIVED: June 12, 2012

API Number	Well Name	Surface Location	
43-047-52785	NBU 921-24N4BS	Sec 24 T09S R21E 0484 FSL 1887 FWL	
43-047-52786	NBU 921-24N4CS	Sec 24 T09S R21E 0478 FSL 1880 FWL	
43-047-52787	NBU 921-24N1CS	Sec 24 T09S R21E 0719 FSL 2635 FEL	
43-047-52788	NBU 921-24M1CS	Sec 24 T09S R21E 0464 FSL 1865 FWL	
43-047-52789	NBU 921-24G1BS	Sec 24 T09S R21E 1642 FNL 2111 FEL	
43-047-52790	NBU 921-24O1BS	Sec 24 T09S R21E 0710 FSL 2630 FEL	
43-047-52791	NBU 921-2401CS	Sec 24 T09S R21E 0702 FSL 2626 FEL	
43-047-52792	NBU 921-2404CS	Sec 24 T09S R21E 0684 FSL 2616 FEL	
43-047-52793	NBU 921-24O4BS	Sec 24 T09S R21E 0693 FSL 2621 FEL	
43-047-52794	NBU 921-24G4BS	Sec 24 T09S R21E 1659 FNL 2122 FEL	
43-047-52795	NBU 921-24M4BS	Sec 24 T09S R21E 0458 FSL 1857 FWL	
43-047-52796	NBU 921-24N1BS	Sec 24 T09S R21E 0728 FSL 2640 FEL	
43-047-52797	NBU 921-24G1CS	Sec 24 T09S R21E 1651 FNL 2117 FEL	
43-047-52798	NBU 921-24J1BS	Sec 24 T09S R21E 0915 FSL 1258 FEL	
43-047-52799	NBU 921-24A4BS	Sec 24 T09S R21E 0241 FNL 0425 FEL	
43-047-52800	NBU 921-24A4CS	Sec 24 T09S R21E 0242 FNL 0415 FEL	
43-047-52801	NBU 921-24A1CS	Sec 24 T09S R21E 0240 FNL 0435 FEL	
43-047-52802	NBU 921-24M1BS	Sec 24 T09S R21E 0471 FSL 1872 FWL	
43-047-52803	NBU 921-24B1BS	Sec 24 T09S R21E 0045 FNL 1833 FEL	
43-047-52804	NBU 921-24B1CS	Sec 24 T09S R21E 0045 FNL 1843 FEL	
43-047-52805	NBU 921-24K4CS	Sec 24 T09S R21E 1805 FSL 2191 FWL	
43-047-52806	NBU 921-24B4BS	Sec 24 T09S R21E 0046 FNL 1853 FEL	
43-047-52807	NBU 921-24B4CS	Sec 24 T09S R21E 0044 FNL 1823 FEL	
43-047-52808	NBU 921-24P4CS	Sec 24 T09S R21E 0907 FSL 1252 FEL	
43-047-52809	NBU 921-24C1BS	Sec 24 T09S R21E 0897 FNL 2254 FWL	
43-047-52810	NBU 921-24C4BS	Sec 24 T09S R21E 0898 FNL 2234 FWL	
43-047-52811	NBU 921-24C1CS	Sec 24 T09S R21E 0898 FNL 2244 FWL	
43-047-52812	NBU 921-24D1BS	Sec 24 T09S R21E 1285 FNL 0525 FWL	
43-047-52813	NBU 921-24J1CS	Sec 24 T09S R21E 0923 FSL 1264 FEL	
43-047-52814	NBU 921-24D1CS	Sec 24 T09S R21E 1295 FNL 0525 FWL	
43-047-52815	NBU 921-24E4CS	Sec 24 T09S R21E 2470 FNL 0879 FWL	
43-047-52816	NBU 921-24D4CS	Sec 24 T09S R21E 1315 FNL 0526 FWL	
43-047-52817	NBU 921-24J4BS	Sec 24 T09S R21E 0930 FSL 1271 FEL	
43-047-52818	NBU 921-24E1CS	Sec 24 T09S R21E 2463 FNL 0909 FWL	
43-047-52819	NBU 921-24P1CS	Sec 24 T09S R21E 1873 FSL 0488 FEL	
43-047-52821	NBU 921-24C4CS	Sec 24 T09S R21E 0899 FNL 2214 FWL	
43-047-52822	NBU 921-24P1BS	Sec 24 T09S R21E 1875 FSL 0497 FEL	
43-047-52823	NBU 921-24D4BS	Sec 24 T09S R21E 1305 FNL 0526 FWL	
43-047-52824	NBU 921-24I4BS	Sec 24 T09S R21E 1877 FSL 0507 FEL	
43-047-52825	NBU 921-24I1CS	Sec 24 T09S R21E 1879 FSL 0517 FEL	
43-047-52826	NBU 921-24I1BS	Sec 24 T09S R21E 1881 FSL 0527 FEL	
43-047-52827	NBU 921-24H4CS	Sec 24 T09S R21E 1820 FNL 0771 FEL	
43-047-52828	NBU 921-24H4BS	Sec 24 T09S R21E 1819 FNL 0761 FEL	
43-047-52829	NBU 921-24H1CS	Sec 24 T09S R21E 1818 FNL 0741 FEL	
43-047-52830	NBU 921-24H1BS	Sec 24 T09S R21E 1818 FNL 0751 FEL	

1 of 2 6/12/2012

API Number	Well Name	Surface Location
43-047-52831	NBU 921-24K1BS	Sec 24 T09S R21E 2075 FNL 1885 FWL
43-047-52832	NBU 921-24F4CS	Sec 24 T09S R21E 2069 FNL 1893 FWL
43-047-52833	NBU 921-24E1BS	Sec 24 T09S R21E 1325 FNL 0527 FWL
43-047-52834	NBU 921-24F4BS	Sec 24 T09S R21E 2064 FNL 1901 FWL
43-047-52835	NBU 921-24F1CS	Sec 24 T09S R21E 2058 FNL 1909 FWL
43-047-52836	NBU 921-24E4BS	Sec 24 T09S R21E 2465 FNL 0899 FWL
43-047-52837	NBU 921-24L4CS	Sec 24 T09S R21E 1815 FSL 2187 FWL
43-047-52838	NBU 921-24L1BS	Sec 24 T09S R21E 2468 FNL 0889 FWL
43-047-52839	NBU 921-24L4BS	Sec 24 T09S R21E 1824 FSL 2184 FWL
43-047-52840	NBU 921-24F1BS	Sec 24 T09S R21E 0898 FNL 2224 FWL
43-047-52841	NBU 921-24G4CS	Sec 24 T09S R21E 1667 FNL 2128 FEL
43-047-52842	NBU 921-24K1CS	Sec 24 T09S R21E 1843 FSL 2177 FWL
43-047-52843	NBU 921-24K4BS	Sec 24 T09S R21E 1852 FSL 2173 FWL
43-047-52844	NBU 921-24L1CS	Sec 24 T09S R21E 1833 FSL 2180 FWL

2 of 2 6/12/2012

#### **WORKSHEET** APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 6/1/2012 API NO. ASSIGNED: 43047528250000

WELL NAME: NBU 921-24I1CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6356

**CONTACT:** Laura Abrams

PROPOSED LOCATION: NESE 24 090S 210E **Permit Tech Review:** 

> **SURFACE**: 1879 FSL 0517 FEL **Engineering Review:**

> **BOTTOM: 2229 FSL 0497 FEL** Geology Review:

**COUNTY: UINTAH** 

**LATITUDE**: 40.01938 LONGITUDE: -109.49246 **UTM SURF EASTINGS: 628649.00** NORTHINGS: 4430997.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0149076 PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 2 - Indian **COALBED METHANE: NO** 

**RECEIVED AND/OR REVIEWED: LOCATION AND SITING:** ✓ PLAT R649-2-3. Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291 **Potash** R649-3-2. General Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit** 

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:** 

Siting: Suspends General Siting Fee Surface Agreement

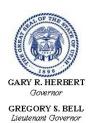
✓ Intent to Commingle R649-3-11. Directional Drill

**Commingling Approved** 

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason



### State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

#### Permit To Drill

\*\*\*\*\*\*

Well Name: NBU 921-24I1CS API Well Number: 43047528250000 Lease Number: UTU 0149076

Surface Owner: INDIAN Approval Date: 8/22/2012

#### Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

#### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### **Commingle:**

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

#### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

#### Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
  - Requests to Change Plans (Form 9) due prior to implementation
  - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

UNITED STATES	
DEPARTMENT OF THE IN	TERIOR
BURBAU OF LAND MANA	<b>JEMENT</b>

BUREAU OF LAND	5. Lease Serial No. UTU0149076			
APPLICATION FOR PERMIT	6. If Indian, Allottee or T	ribe Name		
1a. Type of Work: ☑ DRILL _ REENTER	7. If Unit or CA Agreeme UTU63047A	ent, Name and No.		
1b. Type of Well: ☐ Oil Well     ☐ Otl	ner 🔲 Sin	gle Zone 🔀 Multiple Zone	8. Lease Name and Well NBU 921-24I1CS	No.
2. Name of Operator Contact: KERR-MCGEE OIL&GAS ONSHOREM	LAURA ABRAMS brams@anadarko.com		9. API Well No. 43-047-52	825
3a. Address 1099 18TH STREET STE 600 DENVER, CO 80202	3b. Phone No. (inclu Ph: 720-929-635 Fx: 720-929-735	66	10. Field and Pool, or Ex NATURAL BUTTE	
4. Location of Well (Report location clearly and in accorda	nce with any State requ	irements.*)	11. Sec., T., R., M., or Bl	k. and Survey or Area
At surface NESE 1879FSL 517FEL 46	0.019395 N Lat, 109	9.492532 W Lon	Sec 24 T9S R21E	Mer SLB
At proposed prod. zonę NESE 2229FSL 497FEL 40	0.020356 N Lat, 109	9.492464 W Lon		
14. Distance in miles and direction from nearest town or post APPROXIMATELY 40.8 MILES SOUTH OF VEI			12. County or Parish UINTAH	13. State UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 497'	16. No. of Acres in L 640.00	ease	17. Spacing Unit dedicate	d to this well
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	Proposed Depth 20. BLM/BIA Bond No. on file		on file
359'	10849 MD 10828 TVD		WYB000291	
21. Elevations (Show whether DF, KB, RT, GL, etc. 4916 GL	22. Approximate date 10/01/2012	e work will start	23. Estimated duration 30-60 DAYS	-n
	24. Att	achments	RECEIVI	
The following, completed in accordance with the requirements of	Onshore Oil and Gas O	Order No. 1, shall be attached to t	his form: NOV 2 3	2012
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syste SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	em Lands, the ice).	4. Bond to cover the operatio Item 20 above). 5. Operator certification 6. Such other site specific infauthorized officer.	ns unless covered by an exis	in a file (see
25. Signature (Electronic Submission)	Name (Printed/Typed) LAURA ABRAI	MS Ph: 720-929-6356		Date 03/29/2012
Title REGULATORY ANALYST II		÷		
Approved by (Signature)	Name (Printed/Typed)	Jerry Kenczk	a	NOV 1 6 2012
Title Assistant Field Manager Lands & Mineral Resources	Office VE	RNAL FIELD OFFICE	·	
Application approval does not warrant or certify the applicant holperations thereon.  Conditions of approval, if any, are attached.  CONDITION	ds legal or equitable titl INS OF APPROV	-	se which would entitle the a	pplicant to conduct
Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, m States any false, fictitious or fraudulent statements or representation			make to any department or a	gency of the United
Additional Operator Remarks (see next page)				

Electronic Submission #134267 verified by the BLM Well Information System For KERR-MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

NOTICE OF APPROVAL

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

NOS-10/20/11



# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

170 South 500 East VERNAL, UT 84078

(435) 781-4400



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No: Kerr McGee Oil & Gas Onshore, LP

NBU 921-24I1CS

43-047-52825

Location: Lease No:

Agreement:

NESE, Sec. 24, T9S, R21E

UTU-0149076 Natural Buttes

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

#### NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.



Page 2 of 8 Well: 921-23I1CS 10/26/2012

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.
- Paint facilities "Shadow Gray."
- Conduct a raptor survey prior to construction operations if such activities will take place during raptor nesting season (January 1 through September 30). If active raptor nests are identified during the survey, operations shall be conducted according to the seasonal restrictions detailed it the Uinta Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines.
- If construction and /or drilling operations have not been initiated prior to October 10, 2012, conduct
  a biological survey to determine the presence of Uinta Basin hookless cactus in accordance with
  the guidelines specified in the USFWS Rare Plant Conservation measures and the BLM RMP ROD.
  KMG will implement commitments contained in the GNB BO.
- Monitor construction operations with a permitted archaeologist.
- Monitor road, well pad, and pipeline construction operations with a permitted paleontologist.
- Round corner #8.
- Armor corners #1, #2, and #3.
- Use applicable erosion BMPs to protect all fill slope toes.

#### **ACTS Lines**

- If construction and/or drilling operations have not been imitated prior to October 5, 2012, conduct a
  biological survey to determine the presence of Uinta Basin hookless cactus in accordance with the
  guidelines specified in the USFWS Rate Plant Conservation Measures and the BLM RMP ROD.
  KMG will implement commitments contained in the GNB BO.
- Monitor areas with a permitted paleontologist where ACTS lines will travel through: Section 24-NWNW and NESE.
- Fence site 42UN1025 prior to installation.

Page 3 of 8 Well: 921-23I1CS 10/26/2012

#### **BIA Standard Conditions of Approval:**

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface, unless otherwise specified. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified, and included within the
  Application for Permit to Drill. The reserve pit shall be lined with a synthetic leak proof liner. After
  the drilling operation is complete, excess fluids shall be removed from the reserve pit and either
  hauled to an approved disposal site or shall be used to drill other wells. When the fluids are
  removed the pit shall be backfilled a minimum of 3.0 feet below the soil surface elevation.
- A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel shall refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.
- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Before the site is abandoned the company will be required to restore the right-of-way to near its
  original state. The disturbed area will be reseeded with desirable perennial vegetation. If
  necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed
  mixture.
- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious
  weeds spread from the project area onto adjoining land, the company will also be responsible for
  their control.
- If project construction operations are scheduled to occur during raptor nesting season (January 1 through September 30), KMG shall conduct raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use disturbances, 2002. If active raptor nests are identified during a new survey, KMG shall conduct its operations according to the seasonal restrictions detailed in the Rod for the BLM Approved RMP and spatial offsets specified by the USFWS Utah Raptor Guidelines (See Appendix D).

Page 4 of 8 Well: 921-23I1CS 10/26/2012

- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey and in conformation with the ROD of the BLM's Approved RMP (See Appendix D).
- All personnel shall refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Prior to commencing surveys or construction on the U&O Indian Reservation, the operator and any
  of its subcontractors shall acquire Access Permits and Business Licenses form the Ute Indian Tribe
  Energy and Minerals Department.
- Prior to commencement of construction, the operator shall notify the Ute Indian Tribe Energy and Minerals Department of the date construction shall begin.

Page 5 of 8 Well: 921-23I1CS 10/26/2012

#### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- Gamma ray Log shall be run from Total Depth to Surface.
- Cement for the production casing must be brought 200' above the surface casing shoe.
- A CBL will be run from TD to TOC in the production casing.

#### Variances Granted:

#### Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40'from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.
- FIT Test. Variance granted due to well-known geology and the problems that can occur with the FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

Page 6 of 8 Well: 921-23I1CS 10/26/2012

 All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- · Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
  encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
  Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM\_UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 7 of 8 Well: 921-23I1CS

10/26/2012

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - o Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

Page 8 of 8 Well: 921-23I1CS 10/26/2012

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
  be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to
  the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first.
  All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All
  product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in
  accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 41080 API Well Number: 43047528250000

	STATE OF UTAH		FORM 9		
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149076		
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In		
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-2411CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047528250000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 73779 720 929-	9. FIELD and POOL or WILDCAT: 65NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1879 FSL 0517 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNS	<b>HIP, RANGE, MERIDIAN:</b> 24 Township: 09.0S Range: 21.0E Meridi	an: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
7	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
8/22/2013	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION		
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
40 DECORUDE PROPOSED OR		U office of Lot 11 to 1 to 1 to 1			
Kerr-McGee Oil & G an extension to this	COMPLETED OPERATIONS. Clearly show a gas Onshore, L.P. (Kerr-McGe APD for the maximum time with any questions and/or co	ee) respectfully requests allowed. Please contact	Approved by the Utah Division of Oil, Gas and Mining		
			Date: August 07, 2013		
			By: Backylll		
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUMB</b> 720 929-6236	ER TITLE Staff Regulatory Specialist			
SIGNATURE	0 0 2 0 0 2 0 0	DATE			
N/A		8/6/2013			

Sundry Number: 41080 API Well Number: 43047528250000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047528250000

API: 43047528250000 Well Name: NBU 921-24I1CS

Location: 1879 FSL 0517 FEL QTR NESE SEC 24 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/22/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has t Yes  No	he ownership changed, if so, has the surface agreement been updated?
<ul> <li>Have any wells been drilled in t requirements for this location?</li> </ul>	he vicinity of the proposed well which would affect the spacing or siting  Yes  No
Has there been any unit or other proposed well?     Yes	er agreements put in place that could affect the permitting or operation of the
Have there been any changes to proposed location?    Yes (	o the access route including ownership, or rightof- way, which could affect the
• Has the approved source of wa	ter for drilling changed? 🔘 Yes 🌘 No
	hanges to the surface location or access route which will require a change in at the onsite evaluation? ( Yes ( No
• Is bonding still in place, which	covers this proposed well? 🌘 Yes 🔘 No
nature: Teena Paulo	Date: 8/6/2013

Sig

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 53533 API Well Number: 43047528250000

	STATE OF UTAH		FORM 9		
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149076		
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
	oposals to drill new wells, significantly of reenter plugged wells, or to drill horizon in for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-2411CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047528250000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 73779 720 929-	9. FIELD and POOL or WILDCAT: 6 INATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1879 FSL 0517 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 24 Township: 09.0S Range: 21.0E Meridi	an: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
7	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
8/22/2014	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION		
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
40 DECORUDE PROPOSED OR		United the desired the latest the			
Kerr-McGee Oil & G an extension to this	COMPLETED OPERATIONS. Clearly show a Gas Onshore, L.P. (Kerr-McGe APD for the maximum time a with any questions and/or co	ee) respectfully requests allowed. Please contact	Approved by the		
			Date:		
			By: Docatell		
NAME (PLEASE PRINT) Teena Paulo	PHONE NUMB 720 929-6236	ER TITLE Staff Regulatory Specialist			
SIGNATURE	720 020 0200	DATE			
N/A		7/16/2014			

Sundry Number: 53533 API Well Number: 43047528250000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047528250000

API: 43047528250000 Well Name: NBU 921-24I1CS

Location: 1879 FSL 0517 FEL QTR NESE SEC 24 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 8/22/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated? Q Yes  No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
• Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ( Yes ( No
• Has the approved source of water for drilling changed?   Yes  No
• Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?   Yes  No
• Is bonding still in place, which covers this proposed well? 📵 Yes 🔘 No
nature: Teena Paulo Date: 7/16/2014

Sig

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Form 3160-5 (August 2007)

1. Type of Well

2. Name of Operator

Oil Well Gas Well Other

DENVER,, CO 80217-3779

# RECEIVED

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT** 

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

KERR MCGEE OIL&GAS ONSHORE. EPMail: kav.kellv@anadarko.com

P. O. BOX 173779 1099 18TH STREET, SUITE 1800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 24 T9S R21E Mer UBM NESE 1879FSL 517FEL

OCT 0 8 2014

FORM APPROVED OMB NO. 1004-0135

	Ē	xpires:	July	31,	2
Lease	Serial	No.			

11. County or Parish, and State

**UINTAH COUNTY, UT** 

SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill or to re-enter are	A #
Do not use this form for proposals to drill or to re-enter an bandoned well. Use form 3160-3 (APD) for such proposals.	NI

Contact:

UTU0149076
6. If Indian, Allottee or Tribe Name
7. If Unit or CA/Agreement, Name and/or No. UTU63047A
8. Well Name and No. NBU 921-2411CS
9. API Well No. 43-047-52825
10. Field and Pool, or Exploratory NATURAL BUTTES

12.	CHECK	APPROPRIATE BOX(ES	TO INDICATE NATURE OF NOTICE	, REPORT, OR OTHER DA	TA

Ph: 720-929-6582

Phone No. (include area code)

KAY E. KELLY

TYPE OF SUBMISSION		ТҮРЕ О	F ACTION	
Notice of Intent ☐ Subsequent Report ☐ Final Abandonment Notice	☐ Acidize ☐ Alter Casing ☐ Casing Repair ☐ Change Plans ☐ Convert to Injection	Deepen Fracture Treat New Construction Plug and Abandon Plug Back	☐ Production (Start/Resume) ☐ Reclamation ☐ Recomplete ☐ Temporarily Abandon ☐ Water Disposal	☐ Water Shut-Off ☐ Well Integrity ☑ Other Change to Original A PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Kerr-McGee Oil & Gas Onshore, L. P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

APD-11/16/12

NEFA- EA - 2013-21

DR-10/23/12

RECEIVED

NOV **06** 2014

DIV. OF OIL, GAS & MINING

VERNAL	FIELD OFFICE	Έ
ENG.	U 10/28/14	_
GEOL	*	- ]
E.S		_
PET		
RECL.		

CONDITIONS OF APPROVAL ATTACHED

14. I hereby certify that the foregoing is true and correct Electronic Submission #268704 verified by the BLM Well Information System For KERR MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal Committed to AFMSS for processing by JOHNÉTTA MAGEE on 10/10/2014 ()

Name (Printed/Typed) KAY E. KELLY Title SR. STAFF REG. SPECIALIST Signature (Electronic Submission) Date 10/06/2014

#### THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Title

Approved By

Assistant Field Manager Lands & Mineral Resources

DCT 2 9 2014

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant folds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

**VERNAL FIELD OFFICE** 

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

# **CONDITIONS OF APPROVAL**

## Kerr McGee Oil and Gas Onshore LP.

### Notice of Intent APD Extension

Lease:

UTU-0149076

Well:

NBU 921-24I1CS

Location:

NESE Sec 24-T9S-R21E

An extension for the referenced APD is granted with the following conditions:

- 1. The extension and APD shall expire on 11/16/2016.
- 2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777

Sundry Number: 64649 API Well Number: 43047528250000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149076		
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-2411CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047528250000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 3779 720 929-6	9. FIELD and POOL or WILDCAT: 1NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1879 FSL 0517 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 24 Township: 09.0S Range: 21.0E Meridi	an: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
.,	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
7/6/2015	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIPE PROPOSED OF	COMPLETED OPERATIONS. Clearly show a		<u>'</u>
Kerr-McGee Oil & G an extension to this	Gas Onshore, L.P. (Kerr-McGe APD for the maximum time a with any questions and/or co	ee) respectfully requests allowed. Please contact	Approved by the Utally D7vi2015of Oil, Gas and Mining
			Date:
			By: Bally !!
NAME (PLEASE PRINT)	PHONE NUMBI	ER TITLE	
Jennifer Thomas	720 929-6808	Regulatory Specialist	
SIGNATURE N/A		<b>DATE</b> 7/6/2015	

Sundry Number: 64649 API Well Number: 43047528250000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047528250000

**API:** 43047528250000 **Well Name:** NBU 921-24I1CS

Location: 1879 FSL 0517 FEL QTR NESE SEC 24 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/22/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

Following is a checklist of some items related to the application, which should be verified.	
• If located on private land, has the ownership changed, if so, has the surface agreement been up Yes 📵 No	odated? 🔵
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>	or siting
• Has there been any unit or other agreements put in place that could affect the permitting or operoposed well? ☐ Yes ■ No	peration of this
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which opposed location?</li> <li>Yes</li> <li>No</li> </ul>	ould affect the
• Has the approved source of water for drilling changed? 🥛 Yes 📵 No	
<ul> <li>Have there been any physical changes to the surface location or access route which will require plans from what was discussed at the onsite evaluation?</li> </ul>	e a change in
• Is bonding still in place, which covers this proposed well? 📵 Yes 🔵 No	
Signature: Jennifer Thomas Date: 7/6/2015	
Title: Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.	

RECEIVED: Jul. 06, 2015

Sundry Number: 72600 API Well Number: 43047528250000

			Transfer of the second of the
	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149076		
SUNDR	RY NOTICES AND REPORTS (	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-2411CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047528250000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 3779 720 929-6	9. FIELD and POOL or WILDCAT: 451ATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1879 FSL 0517 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 4 Township: 09.0S Range: 21.0E Meridia	an: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
7	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
6/24/2016	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kerr-McGee Oil & G an extension to this	COMPLETED OPERATIONS. Clearly show a cas Onshore, L.P. (Kerr-McGe APD for the maximum time a with any questions and/or co	ee) respectfully requests allowed. Please contact	Approved by the Utume 127 is 201 of Oil, Gas and Mining  Date:  By:
NAME (PLEASE PRINT) Joel Malefyt	PHONE NUMBE 720 929-6828	ER TITLE Regualtory Analyst	
SIGNATURE	720 020	DATE	
N/A		6/24/2016	

Sundry Number: 72600 API Well Number: 43047528250000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

#### Request for Permit Extension Validation Well Number 43047528250000

**API:** 43047528250000 **Well Name:** NBU 921-24I1CS

Location: 1879 FSL 0517 FEL QTR NESE SEC 24 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/22/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

<ul> <li>If located on private land, has the ownership changed, if so, has the surface agreement been updated?   Yes  No</li> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No</li> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No</li> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No</li> <li>Has the approved source of water for drilling changed?  Yes  No</li> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No</li> <li>Is bonding still in place, which covers this proposed well?  Yes  No</li> </ul>			, , , , , , , , , , , , , , , , , , ,
requirements for this location?  Yes No  Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes No  Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes No  Has the approved source of water for drilling changed?  Yes No  Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes No  Is bonding still in place, which covers this proposed well? Yes No		<u> </u>	d, has the ownership changed, if so, has the surface agreement been updated? 🔘
<ul> <li>Proposed well? Yes No</li> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No</li> <li>Has the approved source of water for drilling changed? Yes No</li> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No</li> <li>Is bonding still in place, which covers this proposed well? Yes No</li> </ul>			
Proposed location? Yes No  • Has the approved source of water for drilling changed? Yes No  • Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No  • Is bonding still in place, which covers this proposed well? Yes No			
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No</li> <li>Is bonding still in place, which covers this proposed well? Yes No</li> </ul>			
plans from what was discussed at the onsite evaluation? Q Yes  No • Is bonding still in place, which covers this proposed well? Q Yes No	• Has	the approved sourc	ce of water for drilling changed? 🤵 Yes 🃵 No
Signature: Joel Malefyt Date: 6/24/2016	• Is bo	nding still in place	, which covers this proposed well? 🌘 Yes 💭 No
	Signature:	Joel Malefyt	Date: 6/24/2016
Title: Regualtory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.	Title:	Requaltory Analyst	Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Jun. 24, 2016